

EXPLORING THE MECHANISM OF ACADEMIC MOTIVATION:
AN INTEGRATION OF SELF-DETERMINATION AND ACHIEVEMENT GOAL
THEORIES FROM A CRITICAL REALIST PERSPECTIVE

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By

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ABSTRACT

Motivation is a universal psychological phenomenon that determines all that we do. Self-determination Theory (SDT) and Achievement Goal Theory (AGT) each explain the academic motivation of university students and its relation to important academic outcomes (achievement, dedication, and well-being). Recently, an integration of these theories has been proposed (Drylund, 2009) which theorizes that achievement goals affect academic outcomes through their relationship with SDT constructs. The current study uses this integrative theory as a starting point but applies the critical realist perspective which posits that all empirical behaviours are produced by real generative mechanisms (Bhaskar, 1978). Although critical realism is considered vital to the advancement of psychology, its methodology and actual application has yet to be elaborated. Thus, the goals of the current study are: 1. to increase the current understanding of academic motivation; and, 2. to provide a method capable of facilitating research conducted from the critical realist perspective. Study 1 uses a variable-based approach and statistical analysis of questionnaire data from 385 undergraduate students; Study 2 uses a case-based approach through causal mapping of interview data from a purposeful sample of 12 Study 1 participants. Results support an academic motivational mechanism primarily influenced by autonomy satisfaction and controlling motivation that functions through the complex reciprocal relationships between achievement goals, competence satisfaction, and autonomous motivation. Comparison of Study 1 and 2 results supports the argument for case-based research from a critical realist perspective to aid in the further advancement of psychology.

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LIST OF ABBREVIATIONS

AGT	Achievement Goal Theory
CFI	Comparative Fit Index
ESB	Edward's School of Business
H1, H2	Hypothesis 1, Hypothesis 2, etc.
NFI	Bentler-Bonett Normal Fit Index
Psy-REC	Psychology Research Ethics Council
PWB	Psychological Wellbeing
RMSEA	Root Mean Square Error of Approximation
RQ1, RQ2	Research Question 1, Research Question 2, etc.
SDT	Self-determination Theory
SEM	Structural Equation Modeling
sRMR	Standardized Root mean Square Residual index
SWB	Subjective Wellbeing

CHAPTER 1

THEORETICAL AND APPLIED IMPORTANCE OF ACADEMIC MOTIVATION

The fundamental question of all psychological research is “why do people do what they do?”. This question is at the core of motivation research conducted in all domains of life (e.g., work, health, education, etc.). Thus, the study of human motivation is fascinating to researchers, educators, employers, and public institutions alike because it offers a great variety of practical benefits (Lai, 2011). Motivated employees are more productive, more satisfied with their jobs, and earn a higher income than less motivated employees (Rich, Lepine, & Crawford, 2010). Motivated athletes are more successful and continue with their sport for longer than unmotivated athletes (Gillet, Berjot, & Gobance, 2009). Motivated students are more likely to complete school, earn higher marks, and experience positive emotions than less motivated students (Senko, Hulleman, & Harackiewicz, 2011).

Indeed, academic motivation can drastically influence the achievement, dedication, and quality of life of students during a crucial time of learning and growth in their lives. A large body of research focusing on academic motivation has greatly improved our theoretical understanding of motivation and thus has increased the effectiveness of practical applications designed to increase motivation among elementary, high school, and university students alike. The current study attempts to further increase our understanding of academic motivation among university students through the integration of two leading theories (Self-Determination Theory and Achievement Goal Theory) from a critical realism perspective. This type of research is of both theoretical and practical importance.

Practical Importance of Academic Motivation Research

The goal of academic motivation research is to understand what factors contribute to students' motivation and how this affects important outcomes in students' academic lives. The ability to regulate academic motivation is consistently related to many positive outcomes for students, including: higher grades, greater expenditure of effort, better study habits, and less stress and anxiety. The three academic outcomes of interest to the current study are: academic dedication, academic achievement, and well-being. Each outcome will now be discussed followed by a discussion of the two main theories proposed to account for these outcomes.

Academic Dedication

Highly motivated students are more committed to their academic endeavors and experience greater integration with the academic environment than their non-motivated peers. Thus, highly motivated students are more likely to complete university than less motivated students (Jin, 2009; Shaienks, Gluszynski, & Bayard, 2008). Graduation from university protects against unemployment and allows for a more lucrative job than would be obtained otherwise. In 2009, 82% of Canadian university graduates between the ages of 25 and 64 were employed, while only 55% of Canadians in the same age group who had not completed post-secondary education were employed (Shaienks et al., 2008). In 2008, the income of Canadian university graduates was 70% higher than that of non graduates (Shaienks et al., 2008). University graduates are also found to have more overall life satisfaction than other Canadians (Shaienks et al., 2008).

Despite the benefits of obtaining a university education, many students choose to drop out of university. In 2005, the overall postsecondary education dropout rate in Canada was estimated to be around 15% (Shaienks et al., 2008). Many factors affect student dropout decisions

including family issues and income (Shaienks et al., 2008); however, motivational factors also affect drop out decisions (Ratelle, Guy, Vallerand, Larose, & Senecal, 2007; Vallerand, Fortier, & Guay, 1997). Therefore, understanding academic motivation is a crucial step in increasing the number of Canadian university graduates.

Academic Achievement

In addition to dedication, maintaining an acceptable level of academic achievement is also necessary for university completion. Furthermore, a competitive academic average in University is crucial for admittance to a professional college, graduate school, or employment after graduation. Peppas and Yu (2005) surveyed American and international employers and found that both consider school grades to be an important attribute when selecting university graduates for hire. Although grades are just one component of academic achievement, they are the most common outcome variable included in academic motivation research and have been consistently related to specific types of motivation (Cho, Weinstein, & Wicker, 2011; Meece, Anderman, & Anderman, 2006; Senko et al., 2011; Smith, Davy, Rosenberg, & Haight, 2009; Vansteenkiste, Zhou, Lens, & Soenens, 2005; Young, 2007). Therefore, influencing a student's motivation may promote greater academic achievement.

Well-being

University education is a stressful time for many students. As a result, depression, anxiety, and even suicide are not uncommon (Stephenson, Belesis, & Sendy, 2008). Research has consistently found that positive motivation promotes healthy well-being among students. Therefore, motivation research has the potential to greatly increase the quality of student lives.

Positive psychology differentiates between two types of well being: *Psychological Well-*

being (PWB) and *Subjective Well-being* (SWB). In general, SWB is one's evaluation of their life (Diener, 2000). It includes components of pleasure, life satisfaction, positive affect, and the absence of negative affect such as stress, anxiety, depression or other psychopathology. PWB is a richer experience that results from "living a life well lived" (Ryff & Keyes, 1995). That is, PWB is a more multifaceted concept that encompasses: positive self-regard, quality relations with others, self actualization, sense of life meaning, interest, vitality, continued personal growth and environmental mastery (Huta & Ryan, 2009; Rudy, Sheldon, Awong, & Tan, 2007; Ryff & Keyes, 1995). Clearly, PWB is a benefit in itself; in addition, is also thought to positively affect the physical and psychological health of an individual (Huta & Ryan, 2009). Both types of well-being are consistently related to motivation and are perhaps the most important outcomes of increasing academic motivation among students (Ryan, Huta, & Deci, 2006).

Well-being (psychological and subjective), academic dedication, and academic achievement are but three of the academic outcomes empirically related to student motivation. Each has direct implications for student lives. Therefore, applying academic motivation research to the purpose of promoting higher quality motivation among students is beneficial for students, educators, and society. However, effective motivation interventions must be closely developed from theory.

Theoretical Importance of Academic Motivation Research

Theoretically, the main goal of motivation research is to discover sociocultural and psychological mechanisms of academic motivation and the ways in which these mechanisms influence academic outcomes. This goal includes identification of the main constructs that comprise academic motivational mechanisms (componential analysis) and the relationships

between constructs in producing motivation and academic behaviours (structural analyses). To this end, academic motivation research has typically been conducted under the direction of two theories: Achievement-Goal Theory and Self-Determination Theory. Recently, an integration of these theories has been proposed and supported by initial empirical research (Drylund, 2009; see also Cho et al., 2011 and Ciani, Sheldon, Hilpert & Easter, 2011 who tested elements of this integrative model). According to this integrative model, Achievement Goal Theory can be explained through Self-determination Theory. Thus, research testing this integrative model is important to our understanding of the generative mechanisms behind academic motivation.

Achievement Goal Theory of Motivation (AGT)

The Achievement Goal Theory proposes that students adopt different goal orientations and that these goal orientations influence their motivation. A goal orientation in the academic context is a student's set of reasons for engaging in an academic task (Cho et al., 2011). An individual may possess either a *mastery goal orientation* or a *performance goal orientation* (these are sometimes referred to as task orientation and ego orientation in other domains such as athlete or employee motivation; Senko et al., 2011). Students with mastery goal orientations engage in academic tasks to acquire and develop their competence with a focus on learning and self-improvement while those with performance goal orientations engage in academic tasks to demonstrate their competence with a focus on ability and social comparisons (Dweck, 1986; Karabenick, 2004; Senko et al., 2011). These differences in goal orientations are the result of differing views of ability and different definitions of success and failure. Specifically, students orientated toward setting mastery goals believe that ability is malleable and define success by self-defined criteria (Dweck, 1986; Nicholls, 1984). Contrarily, performance orientated students

believe ability is a fixed attribute and define success by the ability to outperform others (Dweck, 1986; Nicholls, 1984; Senko et al., 2011).

A clear distinction between *achievement goals* and *achievement goal orientations* is not always made in the literature. While achievement goal orientations are the reasons students have for performing a task *based on their personal predispositions*, achievement goals are the *actual cognitive aims* that students form (Cho et al., 2011; Elliot & Murayama, 2008; Karabenick, 2004). That is, one's reason for embracing a goal is conceptually different from the goal itself. For example, a student may value learning and be predisposed to adopting mastery goals, thus possessing a mastery goal orientation; however, in the context of a specific class, this student may form performance or mastery goals. That is, the student may *either* strive to have the highest grade and outperform classmates (i.e. set a performance goal) or to learn important skills that are important to their future (i.e. set a mastery goal) depending on whether the course is elective or required, if the professor is a renowned scholar or a graduate student, or any number of factors relevant to the student himself. That is, the achievement goals students form are context-dependent and thus are not dictated entirely by one's goal orientation. The current study will consider achievement goals only (e.g. the actual goals formed) and not the reasons for adopting those goals; that is, goal orientations are not considered in the research design.

Originally, it was believed that mastery goals were related to positive academic outcomes and performance goals were related to negative academic outcomes (Dweck, 1986; Nicholls, 1984; Senko et al., 2011). This belief was so strong that policies have been created to promote mastery goals and thwart performance goals (Cho, et al., 2011; Karabenick, 2004; Senko et al., 2011). However, empirical research does not support this intuitive assumption as students who

adopt performance goals are consistently found to perform better than students who adopt mastery goals (for a meta-analytic review, see Hulleman, Schrager, Bodmann, & Harackiewicz, 2010). This finding led to the expansion of AGT by adding an approach-avoidance dimension (Elliot, 1999; Pintrich, 2000a). *Mastery-approach goals* focus on the acquisition of knowledge or improvement, while *performance-approach goals* focus on the demonstration of greater ability than others. Contrarily, *mastery-avoidance goals* focus on avoiding learning failures or skill decline and *performance-avoidance goals* focus on avoiding doing worse than others (Karabenick, 2004; Senko et al., 2011). It has become convention for academic motivation research to omit mastery-avoidance goals as skill decline is not often a concern among undergraduate students (Young, 2007; Luo, Paris, Hogan & Luo, 2011; Cho et al., 2011). Therefore, the goals of interest in the current study are mastery-approach goals, performance-approach goals, and performance-avoidance goals.

Empirical research has supported the approach-avoidance distinction as evidence consistently highlights the existence of two separate types of goals (Elliot, 1999; Pintrich, 2000a) Karabenick, 2004). Avoidance goals (both mastery and performance) are now consistently related to the negative outcomes that were once attributed to performance goals (for a review, see Elliot & Moller, 2003 or Senko et al., 2011; Hulleman et al., 2010; Karabenick, 2004). Furthermore, performance-approach goals, when measured separate from performance-avoidance goals, are often related to the positive outcomes previously associated with mastery goals (Moller & Elliot, 2006; Senko et al., 2011). Therefore, instead of viewing mastery and performance goals as two competing orientations, many researchers now believe that students may adopt and benefit from multiple goals simultaneously and that each goal offers unique

benefits to students. This view is known as the Multiple Goal Perspective and is consistently supported (Elliot, 1999; Harackiewicz, Barron, & Elliot, 1998; Harackiewicz, Barron, Pintrich, Elliot, & Thrash, 2002; Pintrich, 2000b; Senko et al., 2011). Indeed, unique academic outcomes are consistently associated with each type of achievement goal.

AGT and Academic Outcomes. Mastery and performance goals have consistently been linked to specific academic outcomes. Perhaps the most intriguing goal-outcome link is the counterintuitive finding that mastery-approach goals are unrelated to academic achievement while performance-approach goals are consistently related to academic achievement in a variety of contexts; that is, students who adopt performance-approach goals are statistically more likely to earn higher marks than students who adopt mastery-approach goals (Hulleman et al., 2010; Senko et al., 2011; Young, 2007). This relationship is especially robust as it has been demonstrated internationally (Cury, Elliot, DaFonseca, & Moller, 2006), among various age groups (Harackiewicz et al., 2000; Skaalvik, 1997; Wolters, Yu, & Pintrich, 1996), and in courses with various grading criteria (e.g. multiple choice exams vs. term papers and participation; Barron & Harackiewicz, 2003; Harackiewicz et al., 2002).

This finding is counterintuitive because, compared to performance goals, mastery goals have a stronger relationship to all other positive academic outcomes (for review, see Senko et al., 2011). For example, mastery goals are associated with the adoption of deep, as opposed to shallow, learning strategies, cooperative attitudes, the perception that tasks are valuable, and effective help seeking behaviour among students (Darnon, Butera, & Harackiewicz, 2007; Dyrland, 2009; Karabenick, 2003; Karabenick, 2004; Karabenick, 1998; Levy, Kaplan, & Patrick, 2004; Senko et al., 2011; Wolters, 2004). Mastery goals are also positively related to

academic outcomes associated with PWB such as interest, positive peer relations, positive affect, and reduced stress (Darnon, et al. 2007; Harackiewicz, Barron, Tauer, Carter, & Elliot, 2000; Levy, et al., 2004; Pekrun, Elliot, & Maier, 2006; Senko et al., 2011). The adoption of mastery goals also predicts greater dedication and effort toward one's studies as well as greater persistence when challenged (Senko et al., 2011; Wolters, 2004).

The outcomes associated with performance-approach goals are less clear. The positive outcomes associated with mastery-approach goals are often unrelated to performance goals but have also been positively or negatively related in other studies (for review, see Senko et al., 2011). For example, some studies have found performance-approach goals to be related to positive outcomes such as increased persistence, effort, self-efficacy, interest, and low test anxiety (Hulleman et al., 2010; Leondari & Gialamis, 2002; Senko & Harackiewicz, 2005; Moller & Elliot, 2006), while other studies have found performance-approach goals to be related to negative outcomes such as lower long term dedication, poor peer relations, liberal perceptions of cheating, avoidance of help seeking, low self-efficacy, test anxiety, and adoption of poor learning strategies (Ames & Archer, 1988; Barker, McNery, & Dowson, 2002; Elliott & Dweck, 1988; Elliot, McGregor, & Gable, 1999; Grant & Dweck, 2003; Greene, Miller, Crowson, Duke, & Akey, 2004; Meece, Blumenfeld, & Hoyle, 1998; Karabenick, 1998; Linnenbrink, 2005).

In addition, performance-avoidance goals are related to negative outcomes such as stress, anxiety, poor study habits, avoidance of help-seeking, self-handicapping, low interest, and poor achievement (Dyrlund, 2009; Elliot & Church, 1997; Elliot et al., 1999; Midgley & Urdan, 2001; Wolters, 2004). These relationships between mastery-approach goals and positive academic outcomes, performance-avoidance goals and negative academic outcomes, and performance-

approach goals and academic achievement are frequently replicated and have proven robust in the literature. Nevertheless, research on the goal-outcome links of AGT is not without limitations.

Limitations of AGT. Although AGT yields robust links between achievement goals and academic outcomes, it suffers from a key limitation: AGT does not explain *why* these goal-outcome links occur (Senko et al., 2011). Currently, the finding that performance goals are related to academic achievement while mastery goals are not is the only goal-outcome link for which a theoretical explanation has been presented. Preliminary research has identified three hypotheses that attempt to explain the performance goal-achievement relationship and lack of mastery goal-achievement relationship: The Goal Difficulty Hypothesis, The Depth of Learning Hypothesis, and The Learning Agenda Hypothesis (see Senko et al., 2011 for review). However, support for these hypotheses has been mixed. Furthermore, although these hypotheses each propose an explanation for the link between achievement goals and academic achievement, none explain most other goal-outcome links (e.g. the links between mastery goals and well-being, performance goals and cheating, etc.; Senko et al., 2011). Some researchers have proposed that a psychological model must exist that can account for all goal-outcome links of AGT (Drylund, 2009). The hypothesized model that has received the most support to date is that which incorporates the Self-Determination Theory of motivation (Cho et al., 2011; Ciani et al., 2011; Drylund, 2009). That is, Self-Determination Theory is thought to explain the goal-outcome links of AGT.

Self-Determination Theory of Motivation (SDT)

The Self-Determination Theory is another leading theory of motivation that has been supported by a large body of research and successfully applied to students, athletes, and employees (Deci, Ryan, Gagne, Leone, Usunov, & Kornazheva, 2001; Dyrland, 2009; Ciani et al., 2011; Ratelle, et al., 2007). SDT has two original components. The first is that human beings are motivated to satisfy basic psychological needs just as they are motivated to satisfy physical needs for food, water, and sleep. The three basic needs that each individual possess are the need for *autonomy*, *competence* and *relatedness* (Deci et al., 2001). The need for autonomy refers to the need to be the origin of one's own actions; the need for competence refers to the need to feel proficient and effective; and, the need for relatedness refers to the need to feel securely connected to others. Therefore, SDT posits that human beings are motivated to pursue activities that provide them with the opportunity to satisfy their psychological needs (Deci et al., 2001; Vansteenkiste, Lens, Soenens, & Luyckx, 2006).

The second original component of SDT is the conceptualization of motivation as a continuum of different forms of motivational regulation. That is, motivation is believed to exist on a continuum from amotivated (no desire to engage in the activity) to intrinsically motivated (regulated behavior in which one is involved in the activity for pure interest and enjoyment). Between these two extremes are four types of extrinsic motivation: external regulation, or being involved to receive a reward or avoid punishment; introjected regulation, being involved to enhance pride or avoid guilt; identified regulation, being involved because one realizes the importance of the activity; and, integrated regulation, being involved because the activity has become a part of one's self concept (Deci et al., 2001; Vallerand, Pelletier, Blais, Briere, Senecal,

& Vallieres, 1992; Vansteenkiste, et al., 2005). According to this continuum of motivation, fulfilment of one's internal needs for competence, autonomy, and relatedness allows one to become self-determined and thus more intrinsically motivated (Vansteenkiste et al., 2006b; Deci et al., 2001).

Recent SDT research has focused on three types of motivation extracted from this original continuum: intrinsic, autonomous, and controlling. These three types represent unique forms of motivation that are no longer thought to exist on a continuum. That is, these forms of motivation are differentiated by *quality* of motivation as opposed to *quantity* of motivation (Ratelle et al., 2007). For example, the difference between intrinsic and controlling motivation is not simply an increase in motivation; rather, it is a qualitatively different experience of motivation altogether. *Intrinsic motivation* is a self-determined form of motivation in which one engages in an activity purely for the pleasure, interest, curiosity, or satisfaction derived from it (Fairchild, Horst, Finney & Barron, 2005). Therefore, an intrinsically motivated individual in the academic domain is driven to pursue academic activities out of interest, curiosity, and a desire to learn new things.

Autonomous motivation is a second form of self-determined motivation and incorporates the concepts of identified regulation and integrated regulation (Ratelle et al., 2007; Rudy et al., 2007). Therefore, one who experiences autonomous motivation of academic behaviour intentionally engages in an academic activity because he or she finds it personally important and chooses to do so after having thoroughly considered all other options (Ratelle et al., 2007). That is, an autonomously motivated individual may not enjoy or be personally interested in their academic activities but will continue to engage in them because he or she feels it is important to

do so.

Controlling motivation is not considered a self-determined form of motivation and incorporates the concepts of external regulation and introjected regulation (Rudy et al., 2007; Ratelle, et al. 2007). Therefore, one who experiences controlling motivation of academic behaviour feels forced to engage in academic activities in order to avoid punishment or guilt, receive a reward, enhance their pride, or to please others. Amotivation is also included in research, however it is technically not a form of motivation (Ratelle et al., 2007). Therefore, the SDT concepts of interest to the current study are intrinsic motivation, autonomous motivation, controlling motivation, and the two psychological needs of autonomy and competence (omission of the need for relatedness is discussed later). As in AGT, each concept of SDT is associated with specific academic outcomes.

SDT and Academic Outcomes. Each type of motivation within SDT is consistently related to certain outcomes. Controlling motivation is correlated with many negative outcomes including increased stress, anxiety, and depression (Drylund, 2009; Ratelle et al., 2007). Therefore, it is associated with poor psychological well-being. Davy et al. (2007) also found that extrinsic motivation, which is a component of controlling motivation, statistically predicted cheating behaviour in a sample of college students. Controlling motivation is also related to decreased dedication. In a 1997 study of 4,537 high school students, Vallerand et al. (1997) revealed that students with controlling motivation were significantly more likely to drop out of school within the following year than students with autonomous motivation.

Contrarily, autonomous motivation is positively associated with well-being, dedication, and academic achievement (Ratelle et al., 2007). Although a clear differentiation between intrinsic

and autonomous motivation is not always made in the literature, intrinsic motivation is often found to be most strongly related to all positive outcomes, including higher academic achievement, increased dedication, positive emotions, interest, and positive peer relations (Dyrlund, 2009; Ratelle et al., 2007; Senko et al. 2011; Smith, et al., 2009; Vallerand, et al., 1997). Intrinsic motivation has also been negatively related to cheating (Davy et al., 2007; Smith et al., 2009). Smith et al. (2009) provide evidence from a sample of nearly 2,000 business students that intrinsically motivated students develop greater academic ability, and therefore, do not have a need to cheat. This occurs because they have a true desire to learn the material which is not satisfied by cheating (Smith et al., 2009).

According to the tenets of SDT, satisfaction of one's psychological needs is related to higher levels of self-determined motivation. That is, as one's autonomy and competence satisfaction increases, their motivation shifts on the continuum from external regulation to integrated regulation and eventually to intrinsic motivation (Deci et al., 2001). Although recent theorists do not conceptualize motivation types as existing on a continuum, the hypothesized relationships with needs satisfaction persist such that satisfaction of autonomy and competence is believed to promote autonomous and intrinsic motivation but hinder controlling motivation (Vansteenkiste et al., 2006b). Similarly, decreased need satisfaction is expected to promote controlling motivation and hinder autonomous and intrinsic motivation (Ratelle et al., 2007). Therefore, satisfaction of the needs for autonomy and competence is positively related to the outcomes associated with intrinsic motivation and autonomous motivation and negatively related to the outcomes associated with controlling motivation (Drylund, 2009; Ryan et al., 2006).

Interestingly, SDT researchers associate autonomous motivation with many of the positive

academic outcomes that AGT researchers associate with mastery goals (i.e. positive well-being and high academic dedication; Drylund, 2009; Ratelle et al., 2007; Senko et al., 2011; Smith, et al., 2009; Vallerand, Fortier, and Guay, 1997). Similarly, SDT researchers associate controlling motivation with many of the same negative academic outcomes that AGT researchers associate with performance goals (i.e. low well-being, lack of academic dedication, and academic dishonesty; Davy et al, 2007; Ratelle et al., 2007; Senko et al., 2011; Vallerand, et al. 1997). This observation has resulted in the speculation that AGT and SDT may somehow work together to influence academic motivation. Therefore, current research has focused on an integration of SDT and AGT in the explanation of academic motivation.

Integration of SDT and AGT

It has been proposed that SDT is the mechanism through which AGT functions (Ciani et al., 2011; Cho et al. 2011; Drylund, 2009). That is, satisfaction of one's psychological needs may explain why achievement goals influence achievement outcomes. Theoretically, this may occur if mastery goals promote the satisfaction of psychological needs and performance goals do not. According to this thought, one who adopts mastery goals is more likely to have their psychological needs satisfied than one who adopts performance goals and therefore experiences a greater quality of motivation (i.e. autonomous motivation) which leads to positive academic outcomes. Therefore the goal-outcome links of AGT occur because of need satisfaction and increased motivation quality.

The most comprehensive test of this integrative model was Drylund's (2009) survey study on exercise motivation. Drylund surveyed 1,244 participants about their motivations and goals toward exercise and, using path analysis, found direct positive paths from mastery goal

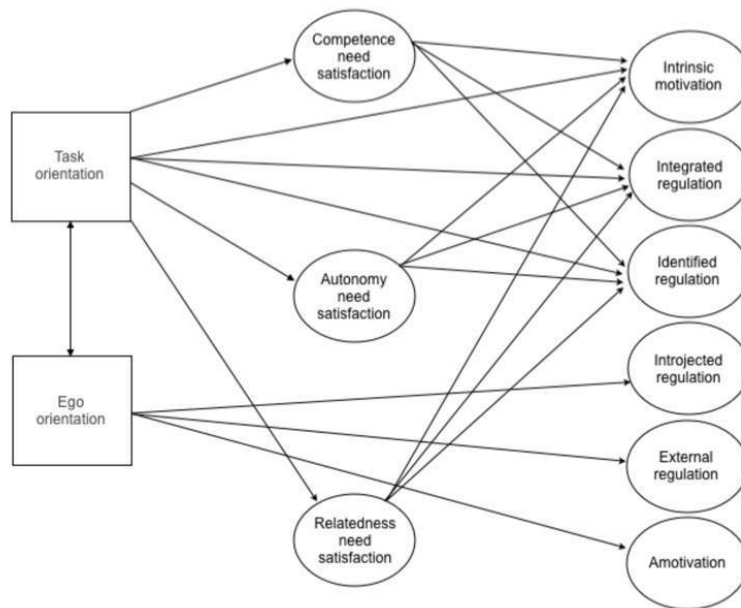


Figure 1-1. Drylund's hypothesized model (2009). Note: in exercise motivation, task orientation is synonymous with mastery goal orientation and ego orientation is synonymous with performance goal orientation.

orientation to each psychological need as well as from mastery goal orientation to intrinsic motivation and the components of autonomous motivation (integrated regulation and identified regulation). A positive direct path was also found from performance goal orientation to the elements of controlling motivation (introjected regulation, and external regulation; Drylund, 2009). Therefore, Drylund's (2009) hypothesized model was supported (Figure 1-1; note that Drylund used the conceptually equivalent terms task and ego orientation to refer to mastery and performance orientation, respectively). Although Drylund's work focused on goal orientations, one may assume that exercisers orientated toward adopting mastery goals (i.e. those with many reasons to adopt mastery goals) would also score high on a measure of mastery goals.

Although this integrative model has not been thoroughly tested in the academic domain, the underlying notion that mastery goals promote need satisfaction while performance goals do not has been supported. In a survey of undergraduate students, Ciani et al. (2011) found that

satisfaction of each psychological need was positively correlated with mastery-approach goals but not significantly related to either performance-approach or performance-avoidance goals. In further support, Cho et al. (2011) directly tested whether the satisfaction of autonomy and competence mediated the effect of achievement goals on learning outcomes in undergraduate students. In support of the integrative model, perceived competence and perceived autonomy did not mediate the effects of either performance goal on any of the outcome measures (Cho et al., 2011). This suggests that performance goals are unrelated to competence and autonomy. However, an analysis of variance detected a significant interaction between perceived autonomy and mastery goals such that perceived autonomy magnified the positive statistical effect of mastery-approach goals on academic effort (Cho et al., 2011). Similarly, perceived competence significantly magnified the statistical effect of mastery-approach goals on adaptive learning strategy (Cho et al., 2011). Furthermore, when perceived autonomy and competence were low, the main effect of mastery-approach goals on all positive outcomes lost significance (Cho et al., 2011). This study provides further evidence that mastery-approach goals lead to positive academic outcomes by increasing need satisfaction.

The work of Drylund (2009) and Cho et al. (2011) was an improvement on previous attempts at integrating SDT and AGT in that they each proposed and tested a coherent statistical model in which SDT acts as a mediator through which AGT functions. However, their research, like most existing motivational research contains serious weaknesses that preclude further theoretical and practical advancement of the psychology of motivation. Three such weakness that will be highlighted and addressed in the current study are: (1) a strong empiricist bias; (2) the a-contextual nature of the research; and, (3) a strong reliance on variable-based rather than

case-based approach. A strong empiricist bias means that current motivational researchers operationalize and transform all concepts that are proposed by the theories into variables. They then attempt to explain motivation by establishing statistical associations among these variables and often interpret these associations causally despite the fact that these associations are based on between participants' co-variances and thus do not represent causal relations. Modern motivation studies are also predominately a-contextual meaning that they are based on large samples of participants who respond to standardized questionnaires with minimal regard for the context within which their actual motivation occurs. This practice exists despite an awareness among all motivation researchers that actual motivation emerges as a result of complex interactions between an individual and their history, experiences, and social context.

Finally, the majority of modern academic motivation research ignores the case-based approach and is over-reliant on the variable-based approach. Specifically, motivation that, in reality, functions as a complex, inter-dependent system is chopped into discrete variables and researchers try to reconstruct the motivational system based on covariances among these variables between large samples of participants. This approach is limited not only because covariances do not mean causation but also because statistical associations cannot capture the reciprocal or functional relations among components of a motivational mechanism which functions within individuals who are embedded in their social contexts and conditions. To address these limitations of existing motivation research, the current study is conducted from the philosophical perspective of critical realism which goes beyond an exclusively variable-based approach, a-contextualism, and extreme empiricism.

CHAPTER 2

THE CRITICAL REALIST PERSPECTIVE FOR MOTIVATION RESEARCH

Critical realist research in the social sciences is steadily becoming more common, especially in the fields of sociology, nursing, and education (Danermark, Ekstrom, Jakobsen, & Karlsson, 2001; Alvesson & Skoldberg, 2009). Although it is beyond the scope of this section to provide an in-depth philosophical discussion of all aspects of critical realism (see Manicas & Secord, 1983, Danermark et al., 2001, or Smith, 2010 for such a discussion), the critical realist perspective is evident at all phases of the current study and therefore its core aspects will be briefly discussed in relation to academic motivation research.

Critical realism is offered as an alternative approach to understanding psychological and socio-cultural realities that reconciles the arguments and criticisms of positivism/empiricism, different versions of social constructivism, and related post-modernist philosophies (Danermark et al., 2001; Lau, 2005; Alvesson & Skoldberg, 2009; Reed, 2009; Smith, 2010). The fundamental disagreement between these philosophical positions is whether there exists a ‘real’ world (including social and psychological worlds) that is independent of human consciousness and if so, how this world is structured and how it should be studied. Empiricism accepts that reality is only what can be experienced and consequently operationalized into variables and measured; contrarily, strong ontological social constructionism denies the existence of or necessity to inquire about the reality beyond individual’s linguistic discourses and interactions.

Critical realism reconciles these positions by positing the existence of reality that is independent from our knowledge and theories about it and that has three layers, or domains: the *empirical*, the *actual*, and the *real* (Bhaskar, 1978). The *empirical domain* consists of all events

that are experienced. That is, it consists of everything that is observed and therefore is the domain at which positivist science operates. The majority of academic motivation research has been conducted at this domain, focusing on relationships between observable variables that represent operationalizations of theoretical constructs. The *actual domain* consists of all events that occur, whether they are experienced or not. Critical realism endorses realist ontology, arguing that the events in the actual domain exist independently of human consciousness. For example, motivation influences individuals' behaviour whether we measure these influences or not. The *real domain* distinguishes critical realism from other forms of realism. The *real domain* consists of the generative mechanisms that produce all events in the world (Bhaskar, 1978; Danermark et al., 2001). These mechanisms exist whether or not they are actively producing an event and whether or not this event is experienced (Alvesson & Skoldberg, 2009). According to critical realism, statistical associations reflect only covariances among motivational and behavioural variables/events that exist in the empirical domain. These regularities must be explained by the mechanisms in the real domain that determine and regulate these associations.

The current study proposes that a motivational mechanism exists in the *real* domain that produces motivational influences on academic events in the *actual* domain. When these events are experienced by students, they become under the domain of the *empirical*. Existing research investigates these experiences and their relations using standardized scales and statistical analysis. Thus, this research remains exclusively in the empirical domain without the possibility of penetrating the real domain to reveal psychological mechanisms of motivation. The reported statistical relations are empirical regularities that may or may not represent the functioning of the motivational mechanisms. Therefore, the critical realist perspective argues that studying

motivation in only its observable form is superficial, akin to merely scratching the surface of reality, as it prevents one from discovering the deeper mechanisms that exist in the real domain which produce motivational events that are observed and experienced (Alvesson & Skoldberg, 2009). That is, current motivational research, which relies predominately on standardized self-report survey data and statistical analysis operates solely at the domain of the empirical and does not provide insight into the functioning of the real motivational mechanism responsible for student's academic motivation.

According to the critical realist perspective, generative mechanisms in the *real* domain *cause* all events in the *actual* domain as well as all experiences in the *empirical* domain (Bhaskar, 1978). Because these causal influences are real, it is appropriate for social science to speak of causality. That is, it is appropriate to state that the hidden mechanism of motivation *causes* observable behaviour. However, critical realism argues that the approach to determining causality taken by positivist researchers is misinformed (Alvesson & Skoldberg, 2009). Most current motivation research focuses on discovering regular sequences of observed events and attributes causal relations to these contingent events (Smith, 2010; Manicas & Secord, 1983). Critical realism refers to this practice as the *epistemic fallacy*: reducing reality to what can be empirically observed (Smith, 2010; Danermark et al., 2001). According to critical realism, all phenomena are determined by underlying causal mechanisms and therefore causal relationships can not be observed but can be inferred based on the manifestations of events and their experiences (Danermark et al., 2001). Therefore, it is inappropriate to propose a causal mechanism of motivation based purely on statistical analysis of observed constructs; such analysis may provide a reference point, but additional inquiry into the unobservable causal

mechanism is needed to adequately understand how academic motivation is produced within students.

However, it is not the case that psychologists may simply uncover a causal mechanism and use it to predict events. Predictions based on explanations of causal mechanisms are only possible in closed systems where mechanisms operate in isolation; this is never the case in the social sciences as all social and psychological events occur in an open system (Danermark et al., 2001; Manicas & Secord, 1983). Therefore, while we can have informed discussions about the functioning and consequences of a proposed motivational mechanism (i.e. theories), we can not use this understanding to make predictions because even though motivation may be explained by a causal mechanism, this mechanism is constantly interacting with other mechanisms and is highly context dependent (Danermark et al., 2001; Alvesson & Skoldberg, 2009; Smith, 2010). Furthermore, motivational mechanisms are predominately psychological and social in nature, as opposed to the chemical or biological mechanisms of the natural sciences, and therefore, despite being *real*, they are socially produced and continuously changing. That is, people do not merely experience the influences of these generative mechanisms, they also co-construct them through their actions and behaviours. Thus, it does not make sense to study motivation by isolating causal mechanisms, stripping them from context, and considering them only at a precise moment as is common practice in the natural sciences and current motivation research in psychology (Alvesson & Skoldberg, 2009). Rather, studies of individual cases, embedded in social and psychological context, are needed to reveal how the causal mechanism of academic motivation exists and functions in an open system of one's personal history, social environment, and projected future. It is important to emphasize that these contexts exist for actual individuals and

not for their samples. That is, the generative mechanism of motivation should be studied at the level of a single, living individual rather than a sample-based conglomerate of individuals mechanically chunked into various variables. Although critical realism does not completely deny the usefulness of statistical relations among variables, it strongly emphasizes a case-based approach as the causal motivational mechanisms function *within* individuals and not *between* them.

Although critical realist researchers do not make predictions, they are able to speak of tendencies and patterns based on explanations of causal mechanisms (Alvesson & Skoldberg, 2009). That is, although motivational mechanisms can not be observed, they are indirectly experienced by their ability to influence our behaviour in the empirical world. Therefore, motivational mechanisms can be studied and explanations can be developed to better understand their functioning. This understanding is not restricted by the epistemic fallacy; rather, it takes into account the deep structure and underlying mechanisms of the real domain. As a result, research conducted through a critical realism lens is the next logical step once an area has reached empirical saturation; that is, as in academic motivation research, where robust, statistical regulations between observable variables are consistently found, the most fruitful method of generating new insight is not to repeat similar statistical analysis, but rather, to use critical realist methodology to uncover the real mechanisms that produce these empirical consistencies. Therefore, the critical realism lens is appropriate even when a proposed model exists because the existing model, based on empirical evidence of observable variables, may provide clues regarding the functioning of a real mechanism. Using these clues as a starting point, additional research using critical realist methodology can provide a more direct inquiry into the mechanism

of interest.

The realist inquiry into unobservable mechanisms relies on *retroduction*, a thought operation in which a researcher mentally goes back from experienced events to the causes and powers that could produce them and reconstructs the conditions required for a phenomenon to exist (Danermark et al., 2001). Unlike deduction and induction, which are logical operations useful in developing knowledge in the domain of the empirical, retroduction allows one to go beyond what is immediately given and develop knowledge in the domain of the real, first in the form of conjecture or hypotheses and ultimately in the form of theory or fact (elevating knowledge to the state of fact is rare, but was achieved by the exemplar critical realist Charles Darwin with regard to his theory of evolution). The use of retroduction is not as well defined as deduction or induction and is largely dependent on the creativity and critical insight of the researcher. Therefore, while critical realism is believed to be a fruitful way of conducting social science and psychological research, its methodology and actual application to empirical research has yet to be elaborated. As a result, the strategy used to gain insight into the motivational mechanism in the current study is largely exploratory. In addition to increasing the body of scientific knowledge on academic motivation, a secondary goal of the current study is to determine the applicability of the chosen methodology, a combination of a standard survey and semi structured interviews, in permitting the occurrence of retroduction. Although frequently cited as vital to generating new and useful knowledge in the social sciences, such a practical means of applying critical realist ideology to academic motivation research has not previously been articulated.

CHAPTER 3

THE PRESENT RESEARCH

The current study addresses the theoretical problem of how motivational mechanisms function to produce academic motivation and related outcomes. In doing so, it also addresses the practical problem of improving student dedication, well-being, and achievement. The study uses the integrative model of AGT and SDT as a starting point and employs both the conventional, empiricist, statistical and variable-based approach (Study 1) as well as the critical realist, qualitative and case-based approach (Study 2). In doing so, this study not only provides novel insights into the understanding of academic motivation but also allows for a direct comparison of approaches and provides a template by which additional psychological research may be conducted from a critical realist perspective.

Goals and Research Questions of the Current Study

The current research has two general goals. The first goal is to confirm and expand the body of knowledge regarding academic motivation by combining the two dominate theories and applying them to academic motivation and behavioural outcomes of university undergraduate students. Drylund's (2009) integrative model of exercise motivation, based on the conceptual framework of SDT and AGT, is used as a starting point for the current research. Specifically, evidence will be sought to support or refute the claim that the underlying mechanism of academic motivation may be represented by a model integrating SDT and AGT constructs. In addition, academic outcomes were included to assess the applied utility of the integrative model.

The second goal is to apply critical realism to the study of academic motivation and to compare it to the conventional empiricist, statistic-based methodology. Specifically, a study

utilizing existing questionnaires and the path analysis will be used to combine the two theories in describing academic motivation using statistical regularities. A sub-sample of these participants will then participate in semi-structured interviews which will be subjected to causal mapping analysis. This will provide an opportunity for retroducting the motivational mechanisms of students' academic motivation and critical reflections will be provided to assess the utility of these approaches in accessing underlying causal mechanisms at the domain of the real. Although critical realism is gaining popularity in the social sciences, there is currently no straightforward approach or methodological suggestions regarding how best to conduct critical realist research (Alvesson & Skoldberg, 2009) and therefore this first step is greatly needed to allow and stimulate further psychological research from the critical realist perspective.

In line with these goals, the specific research questions of the current study are:

RQ 1: Is there evidence that Drylund's (2009) integrative model, based on the conceptual framework of SDT and AGT, represents a causal mechanism responsible for academic motivation of university students?

RQ 2: Which approach is more useful/capable in revealing underlying causal mechanisms within the field of psychology: a variable-based approach relying on a questionnaire analyzed using statistics (Study 1); or, a case-based approach relying on a concept-framed interview analyzed with causal mapping (Study 2)? What are the advantages and disadvantages of these two approaches?

Both RQs will be addressed by Study 1 and Study 2 described shortly.

Improvements of the Current Study Compared to Previous Research

The current study is novel in that it extends existing academic motivation research by being the first to apply a comprehensive model integrating SDT and AGT to the academic domain. It is also the first to apply a critical realist paradigm to academic motivation research and compare it with the conventional statistical approach. Therefore, the current study offers three primary improvements to past academic motivation research: 1) a comprehensive model that incorporates SDT and AGT constructs most relevant to academic motivation (Figure 3-1) is proposed as a working representation of the mechanism responsible for academic motivation and this model is considered in its entirety, including outcome variables; 2) the suitability of this model in representing the real motivational mechanism is tested with two complementary approaches (case-based and variable-based) to ensure methodological pluralism; and, 3) all

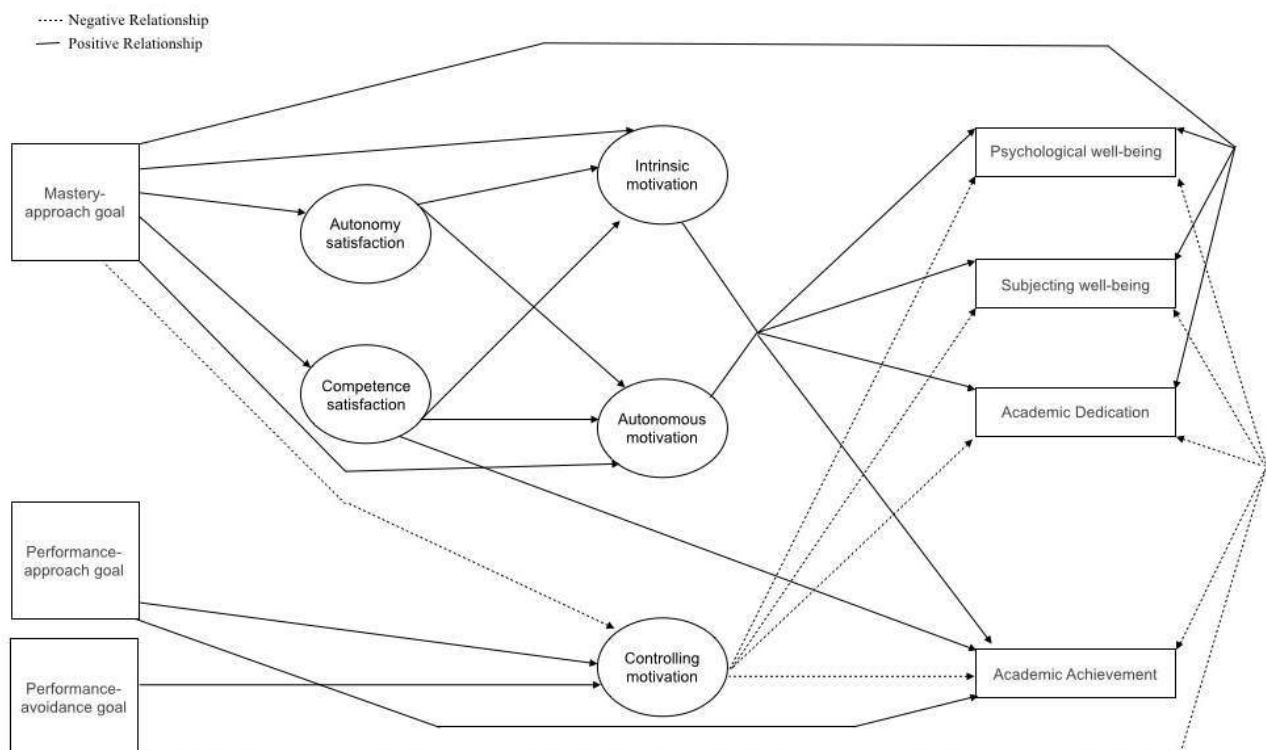


Figure 3-1. Hypothesized integrative model. Note that relationships between SDT motivation types are not shown; direct relationships from SDT needs to outcome variables are also not shown.

constructs of the working model are precisely defined, measurements match these definitions, and definitions are consistent across methodologies. Therefore, this study will make novel contributions to the existing knowledge of academic motivation and will add to the body of critical realist research in psychology.

1. Utilization of a comprehensive model. The current study's use of a comprehensive model that integrates SDT and AGT constructs as well as outcome variables (Figure 3-1) is a notable improvement to existing research as the majority of existing studies intended to integrate SDT and AGT merely test the correlations between concepts from each theory without hypothesizing a comprehensive, explanatory, model (e.g. Cervello, & Gonzalez-Cutre, 2010; Gonzalez & Wolters, 2006; Van Nuland, Dusseldorp, Martens, & Boekaerts, 2010; Moreno, Urdan & Schoenfelder, 2006). This type of research provides limited insight into the understanding of motivational mechanisms (Blaikie, 2000; Smith, 2010). In the current study, a theoretically integrative model is presented a priori and is proposed to adequately represent the generative mechanism underlying academic motivation (Figure 3-1). This model is based on that developed and applied to exercise motivation by Drylund in 2009. Although it is theoretically possible that SDT and AGT constructs are related in some other manor, Study 1 attempts to determine whether Drylund's (2009) model applies to an academic domain and therefore testing or proposing other integrative models is beyond the scope of Study 1.

The model depicting the proposed mechanism (Figure 3-1) includes the approach-avoidance dimension of AGT that was missing in Drylund's (2009) study as well as three outcome variables (well-being, academic dedication, and academic achievement). Outcome variables are necessary in social research to ensure a study is relevant for practical prediction and

application (Meece, et al., 2006). Indeed, a key criticism and limitation of past motivational research is the omission of outcome variables.

It is important to note that the proposed model of the current study does not include the need for relatedness as doing so would add unnecessary complexity. Indeed, Drylund (2009) included satisfaction of the need for relatedness in her model and found its relationship with achievement goals and motivation to be weaker than that found for competence and autonomy satisfaction. Relatedness is expected to pertain to other aspects of university life more strongly than academic motivation and thus including it in analysis would add unnecessary confusion for interview participants and shared variance in survey data. Cho et al. (2011) did not include the need for relatedness in their study, arguing that satisfaction of the needs for autonomy and competence is sufficient for optimal functioning or increased motivation in an academic context. The current study also adopts this view and, in an effort to reduce the model to its core components, does not consider the need for relatedness. Furthermore, because the hypothesized motivational mechanism exists in an open system, relatedness is just one of many other concepts that interact with the mechanism in unknown ways. That is, although relatedness is a crucial human need according to SDT, students may satisfy this need through academic experiences (e.g. classroom discussions, orientation events) that are not necessarily directly related to their underlying motivational mechanism. For these reasons, the need for relatedness was not included in the current study.

2. Utilization of complementary variable-based and case-based approaches. The second improvement of the current study is its critical methodological pluralism. That is, it studies the proposed motivational mechanisms using two approaches; specifically, the primary

research questions will be addressed by statistical regularities from survey data (variable-based approach) as well as by causal mapping from interview data (case-based approach). The variable-based approach is most conventional in social psychology and focuses on between-subject statistical regularities among variables measured on a large number of participants. The use of large samples is justified by the idea that these statistical regularities reflect empirical laws that govern behaviour. Contrarily, the case-based approach focuses on the distinct motivational dynamics within an individual and generalizations are made based-on the within-individual regularities. For over a century, these two approaches have been dichotomized and psychologists have venomously defended their choice of one approach over the other (Flybvjerg, 2006; Lamiell, 2013; Valsiner, 1986). Although the variable-based approach has become dominate in psychology, many stress the dire need for increased case-based, ideographic psychological research for the field to progress (Barlow, 2009; Flybvjerg, 2006; Lamielle, 2014; Valsiner, 1986); the current study answers this call and is novel in its application of an idiographic, case-based approach to academic motivation.

3. Utilization of precise and consistent construct definitions and measurements.

Existing research is also criticized for including poorly defined constructs and measuring them with scales that lack construct validity (Cronbach & Meehl, 1955). For example, well-being is often measured by combining many different scales without differentiating between the two conceptually different forms of well-being: psychological and subjective (Huta & Ryan, 2009; Rudy et al., 2007; Vansteenkiste et al., 2006b). Similarly, some research claims to consider how achievement goal orientations are related to need satisfaction but uses scales designed specifically to assess achievement goals rather than goal orientations (Cho et al., 2011; Drylund,

2009; Elliot & Murayama, 2008). The current study focuses directly on the achievement goals that students develop (Elliot & Murayama, 2008). Each concept of the current study is carefully articulated and these definitions are kept consistent across each of the current studies; that is, Study 1 measures each construct using a scale with construct validity based on these definitions and supported internal validity (Appendix A) and Study 2 uses these definitions to form the conceptually framed interview questions.

In total, the current study considers 12 constructs, three of which are conceptualized by AGT (mastery-approach goals, achievement-approach goals, and achievement-avoidance goals), five of which are conceptualized by SDT (autonomy need satisfaction, competence need satisfaction, intrinsic motivation, autonomous motivation, and controlling motivation), and four outcome variables associated with academic motivation (psychological well-being, subjective well-being, academic dedication, and academic achievement). Each study will now be discussed in detail followed by a general discussion in response to RQ1 and a comparison of methods to address RQ2.

CHAPTER 4

STUDY ONE: VARIABLE-BASED SURVEY QUESTIONNAIRE

The purpose of Study 1 was to determine whether Drylund's (2009) model of exercise motivation integrating SDT and AGT could be applied to academic motivation at the domain of the empirical. Therefore, Study 1 is largely a replication of previous research; however, the ability of the proposed comprehensive integrative model to account for academic motivation has not previously been tested in its entirety. Although the current study argues that motivation research has reached empirical saturation in regards to statistical methodology, this methodology was utilized in Study 1 to provide a preliminary description of the relationships between motivational constructs that is necessary for deeper inquiry into a generative motivational mechanism guided by this model (RQ 1). Study 1 also provides as a starting point for comparing statistical analysis with the qualitative method presented in Study 2 (RQ 2). The following hypotheses were proposed:

H1: The goal-outcome relationships of AGT will be supported in the current sample.

Specifically, it is hypothesized that mastery-approach goals will be positively related to psychological well-being, subjective well-being, and academic dedication but will be unrelated to academic achievement (e.g. marks). Performance-approach goals are hypothesized to be positively related to academic achievement but unrelated to all other outcome variables and performance-avoidance goals are hypothesized to be negatively related to all outcome variables.

H2: The relationships proposed by SDT will be supported in the current sample.

Specifically, it is hypothesized that SDT concepts will be interrelated such that autonomy and competence satisfaction are positively related to intrinsic and autonomous motivation but are

negatively related to controlling motivation. Furthermore, it is hypothesized that autonomy and competence satisfaction as well as intrinsic and autonomous motivation will be positively related to all academic outcomes and controlling motivation will be negatively related to all academic outcomes.

H3: AGT and SDT constructs will be related in the manner predicted by Drylund's (2009) integrative model. Specifically, it is hypothesized that approach goals (mastery and performance) will be positively related to all SDT constructs except controlling motivation, with which they will be negatively related. Contrarily, it is hypothesized that performance avoidance goals will be positively related to controlling motivation but negatively related to all other SDT constructs.

Method

Participants

A total of 457 students enrolled in a first year Psychology (n = 386) or a first year Commerce (n = 71) course completed the survey for extra credit. To avoid confounds resulting from nationality, 62 students who self-identified as non-Canadian were removed from the sample. Because Canada is a multi-cultural nation, potential confounds resulting from ethnicity may still exist within the current sample but these are beyond the scope of the current study. Ten additional students who did not answer more than three survey items were also removed from the sample. These exclusions resulted in 385 survey participants included in analysis. Among those included in analysis, 71% were female and the mean age was 19.6 with a range of 17 to 45 years. Only 20 participants were older than 25 years.

Survey participants reflect multiple academic contexts as they represent different

Table 4-1. Frequency of self-reported majors

Self-reported Major	n	% Total
Arts and Science	270	70.13%
Did not say	39	10.13%
Undecided / Undeclared	99	25.71%
Archaeology	1	0.26%
Anatomy and cell biology	1	0.26%
Anthropology	1	0.26%
Astronomy	1	0.26%
BioChemistry	8	2.08%
Biology	9	2.34%
Chemistry	4	1.04%
Computer Science	8	2.08%
Education candidate	2	0.52%
English	4	1.04%
Geology	2	0.52%
History	2	0.52%
Linguistics	1	0.26%
Math	2	0.52%
Music	3	0.78%
Native Studies	3	0.78%
Nursing	21	5.45%
Pharmacology	10	2.60%
Pharmacy candidate	4	1.04%
Philosophy	1	0.26%
Physics	1	0.26%
Physiology	5	1.30%
Political studies	3	0.78%
Psychology	25	6.49%
Regional & urban planning	1	0.26%
SocialWork	4	1.04%
Sociology	4	1.04%
Theatre design	1	0.26%
ESB	77	20.00%
Did not say	20	5.19%
Undecided / Undeclared	28	7.27%
Accounting	11	2.86%
Management	10	2.60%
Finance	5	1.30%
Marketing	1	0.26%
Human Resources	2	0.52%
Kinesiology	25	6.49%
Undecided / Undeclared	13	3.38%
Physiology	2	0.52%
Sport & Exercise	5	1.30%
Movement	1	0.26%
Exercise	4	1.04%
Agriculture	7	1.82%
Agromony	2	0.52%
Animal Science	2	0.52%
Environmental Science	2	0.52%
Agribusiness	1	0.26%
Engineering	4	1.04%
Nutrition	1	0.26%
Open studies	1	0.26%

colleges, areas of study, and cohorts. That is, 69%

of students were in the college of Arts and Science,

20% in the Edwards School of Business, and 11%

in another college at the University of

Saskatchewan; self-reported majors are given in

Table 4-1; 25% were surveyed in winter term of

2012, 65% were surveyed in the winter term of

2013, and 10% were surveyed in the fall term of

2013. Students surveyed in 2013 (n = 288) were

asked whether it was their first semester of

university and how many years they had attended

university. Of those asked, 32% indicated that it

was their first semester and 75% indicated they had

attended university for one year or less; 14% had

attended for 2 years and 11% had attended for 3 or

more years with the maximum being 5 years.

Measures

Scales and demographic questions were combined to form a survey package (Appendix C).

The survey package contains vague titles such as

“General Attitudes” to reduce the social desirability

confound among students who wish to appear

Table 4-2: Reliability coefficients for all scales used		
Scale	items	Cronbach's Alpha
AGQ-R: Mastery-Approach Goals	3	0.729
AGQ-R: Performance-Approach Goals	3	0.816
AGQ-R: Performance-Avoidance Goals	3	0.873
BPNS: Autonomy sub-scale	7	0.612
BPNS: Competence sub-scale	6	0.736
SRQ-A: Intrinsic Motivation sub-scale	3	0.799
SRQ-A: Autonomous Motivation sub-scale	6	0.746
SRQ-A: Controlling Motivation sub-scale	6	0.867
Academic Commitment Scale (used in 2013)	5	0.726
SWLS	5	0.819
PANAS	20	0.879
PWBS	18	0.77
PWBS subscale: Self Acceptance	3	0.51
PWBS subscale: Positive Relations	3	0.528
PWBS subscale: Autonomy	3	0.387
PWBS subscale: Environmental Mastery	3	0.63
PWBS subscale: Purpose in Life	3	0.343
PWBS subscale: Personal Growth	3	0.429

positively motivated. The final survey item was: “would you be willing to participate in a follow-up interview within the next month?” (Study 2).

Theoretical and operational definitions of each variable are given in Appendix A. Each measure required a response on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). All measures proved reliable with Cronbach’s alphas ranging from 0.612

to 0.879 (Table 4-2).

Achievement Goals. The Achievement Goal Questionnaire-Revised (AGQ-R) was modified for use in the current study (Elliot & Murayama, 2008). The AGQ-R contains a 3-item sub scale for each achievement goal (i.e. 12 items total). The sub-scales for mastery-approach goals, performance-approach goals, and performance-avoidance goals each demonstrated high internal consistency (Table 4-2). The mastery-avoidance sub-scale was not used. Two items from the mastery-approach sub-scale were altered to reflect one’s undergraduate goals as opposed to their specific course goals (i.e. the original item “My aim is to completely master the material presented in this class” was changed to “My aim is to completely master the material presented in my courses.” Original and modified items used in the current study are given in Appendix B.

Competence and Autonomy Satisfaction. A modified version of the Basic Psychological Need Satisfaction in Life Scale (BPNS) was used (Deci et al. 2001). The BPNS contains a seven item subscale for autonomy satisfaction and a six item subscale for competence satisfaction (Vansteenkiste et al., 2006b). Original items were modified to reflect need satisfaction at university (i.e. “I feel like I am free to decide for myself how to live my life” was changed to “I feel like I am free to decide for myself how to engage with my courses”). Original and modified items are given in Appendix B.

Motivation. A Self-Regulation Questionnaire for Academic Practices (SRQ-A) was adapted from Chirkov, Ryan, and Willness’s (2005) SRQ for Cultural Practices for use in the current study. In this scale, participants are given three academic behaviours (i.e. attending lectures, completing course work, studying course material) and five potential reasons for engaging in the behaviours. Students indicate the degree to which each reason accounts for their motivation to engage in each activity. The reasons “because of external pressures” and “to get approval or avoid guilt” measure controlling motivation; the reasons “because it is important” and “because it is thoughtfully considered and fully chosen” measure autonomous motivation”; and, the reason “because it is fun” measures intrinsic motivation. Therefore, controlling and autonomous motivation were measured by six items and intrinsic motivation was measured by three items. Complete instructions and items are given in Appendix B. This method of assessing motivation quality has been used in previous studies and is believed to maintain greater construct validity than other scales (Chirkov, et al., 2005; Sheldon & Houser-Marko, 2001).

Psychological Well-being (PWB). The Psychological Well-being Scale (PWBS) developed by Ryff and Keyes (1995) was used to measure PWB in this study. The 18 item scale

includes six components of positive psychological functioning: autonomy (i.e. “in general, I feel I am in charge of the situation in which I live”), environmental mastery (i.e. “I am quite good at mastering the many responsibilities of my daily life”), personal growth (i.e. “for me, life has been a continuous process of learning, changing and growth”), positive relations with others (i.e. “maintaining close relationships has been difficult and frustrating for me”; reverse scored), purpose in life (i.e. “some people wander aimlessly through life, but I am not one of them”), and self acceptance (i.e. “I like most aspects of my personality”). This scale has been validated by a nationally representative sample (Ryff & Keyes, 1995) and is given in Appendix B.

Subjective Well-being (SWB). SWB in this study was measured by combining scores from the 5-item Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) and the 20-item Positive Affect and Negative Affect Scale (PANAS; Diener & Emmons, 1985). The SWLS is a commonly used measure of subjective well-being and includes items reflecting general life satisfaction: “so far, I have gotten the important things in life.” The PANAS lists 10 positive emotions (i.e. interested, proud, inspired, etc.) and 10 negative emotions (i.e. upset, hostile, afraid; reverse scored). Students must indicate the extent to which they generally feel each emotion. The SWLS and PANAS scales are given in Appendix B and are frequently used as reliable measures of SWB (Chirkov et al., 2005; Diener, Emmons, Larsen, & Griffin, 1985; Diener & Emmons, 1985; Huta & Ryan, 2009; Vansteenkiste et al., 2006b).

Academic Dedication. For the first sample of students (n = 97 surveyed in 2012), two items modified from Vallerand et al. (1997) were used to measure academic dedication: “I often consider dropping out of school” (reverse scored) and “I fully intend to complete this degree.” These items were found to predict actual drop out rates of high school students (Vallerand et al.,

1997) and were correlated at $r = 0.241$, $p = 0.017$ in this study. However, this scale does not take into account students who do not intend to complete their current degree but hope to be accepted into a professional college or secondary degree program. Therefore, for the second and third samples ($n = 288$ surveyed in 2013), a more comprehensive 5 item scale was used to measure academic dedication toward earning a university degree. Sample items are: “it is important for me to graduate from university” and “I’m not sure whether I want to come back to university next year (reverse scored).” All items are given in Appendix C. Due to the similarity in scores, data from all samples was used in analysis despite different scales used to measure academic dedication. Specifically, the mean dedication scores were 4.37, $SD = 0.811$, range = 1.5 to 5 for students surveyed in 2012 and 4.40, $SD = 0.61$, range 2 to 5 for those surveyed in 2013; mean dedication overall was 4.39, $SD = 0.67$.

Academic Achievement. For the students surveyed in 2012 ($n = 97$), one item was used: “What was your overall academic average during your previous semester of university?” Students answered on a 5-point Likert scale (1 = less than 60%, 2 = 60-70%, 3 = 71-80%, 4 = 81-90% and 5 = greater than 90%). This single item was expected to accurately reflect student grades. However, the possibility that students were currently completing their first semester of university and therefore would not yet have a response to this item was originally overlooked. Therefore, students surveyed in 2013 ($n = 288$) were asked: “Is this your first semester of University?” and those who selected “no” ($n = 196$) were asked the question above while those who selected “yes” ($n = 92$) were asked: “what was your overall academic average during your final year of high school?”. Furthermore, for 2013 data collection, the response scale was changed to: 0 = less than 50%, 1 = 55-59%, 2 = 60-64%, 3 = 65-69%, 4 = 70-74%, 5 = 75-79%,

6 = 80-84%, 7 = 85-89%, 8 = 90-94%, 9 = greater than 9% in order to increase variability of responses. In analysis, this scale was transformed to a range of 1 to 5 so that academic achievement data could be combined across all participants (e.g. 0 = .5, 2 = 1.5, 9 = 5, etc.).

Demographic Information. In order to better describe the sample, all students were asked their age, gender, and nationality as well as their major and college of enrolment. Students surveyed in 2013 were also asked how many years they had been in university and whether it was their first semester of university.

Procedure

Participants were recruited through an online research recruitment program and received a credit in their first year Psychology (n = 386) or Commerce course (n = 71) for participation. Students read a description of the study online and signed up if interested. Approximately 8 to 20 students were surveyed at a time in a classroom at the University of Saskatchewan. The procedure was as follows: 1) instructions and information about the study were given; 2) students signed an informed consent form; 3) students completed the survey package by filling out a standardized computer scanned response sheet; 4) students were offered a debriefing form providing additional information regarding the study. The researcher was present at all times and the entire session took approximately 20 minutes. Materials and procedure were approved by the U of S research Ethics Review Board.

Analysis

Statistical analysis of the survey results consisted of six steps: 1) preliminary analysis was conducted to ensure data was complete and to assess assumptions of normality (Table 4-3); 2) reliability coefficients were computed for each scale (Table 4-2); 2) means and standard

deviations were calculated for each variable (Table 4-4); 3) mean differences between students were compared based on demographic and academic context variables; 4) Pearson correlations were computed between all variables (Table 4-4); 5) Path analysis was conducted to directly test H1, H2, and H3 (Figures 4-2 to 4-6).

Results

Preliminary Analysis

Although students were instructed to respond using the 1 to 5 scale provided, the standardized sheets included a “0” response which several students selected in response to some items; in these cases, responses were recoded as “1”. Data for at least one item was missing for 31 students; students who did not respond to more than 3 items were removed from analysis ($n = 10$), students who did not respond to the academic achievement item ($n = 6$) were coded as having the mean achievement of the sample (mean = 4.48), students who did not indicate whether it was their first semester of university ($n = 2$) were marked as having not responded (data on this item was missing for all students surveyed in 2012), and for students missing an item from any other scale, that item was given the average value of the student’s response to all other items in the scale (e.g. if missing an item from the SWLS, average of other 4 SWLS items was used).

Assumptions of normality are violated on all but two variables (autonomy satisfaction and controlling motivation) are significantly skewed and five variables have significantly non-normal kurtosis (Table 4-3; significant at $p < 0.05$ if z-score > 1.96 or < -1.96). Autonomy Satisfaction appears to be the only variable with non-significant skewness and kurtosis at $p < 0.05$. Square root and Log transformations were conducted but were unsuccessful in normalizing the data. All

Table 4-3. Skewness and kurtosis values, standard errors, and z scores for all variables						
Variable	Skewness	Standard Error	z-score	Kurtosis	Standard Error	z-score
♦* Mastery-approach Goals	-0.893	0.124	-7.20	1.393	0.248	5.62
♦* Performance-approach Goals	-0.936	0.124	-7.55	0.693	0.248	2.79
♦ Performance-avoidance Goals	-0.805	0.124	-6.49	0.025	0.248	0.10
♦ Intrinsic Motivation	0.494	0.124	3.98	-0.411	0.248	-1.66
♦ Autonomous Motivation	-0.621	0.124	-5.01	-0.089	0.248	-0.36
* Controlling Motivation	0.158	0.124	1.27	-0.817	0.248	-3.29
Autonomy Satisfaction	-0.11	0.124	-0.89	-0.31	0.248	-1.25
♦ Competence Satisfaction	-0.421	0.124	-3.40	0.018	0.248	0.07
♦* Psychological Well-being	-0.932	0.124	-7.52	3.103	0.248	12.51
♦ Subjective Well-being	-0.505	0.124	-4.07	-0.141	0.248	-0.57
♦* Academic Dedication	-1.308	0.124	-10.55	1.583	0.248	6.38
♦ Academic Achievement	-0.325	0.124	-2.62	-0.226	0.248	-0.91
z critical = +/- 1.96						
♦ indicates significant skewness; * indicates significant kurtosis						

remaining analysis was conducted on the original, non-normal data and thus should be interpreted with caution.

Tests of Mean Differences

In order to justify combining sub-samples of students in further analysis, a series of mean comparisons was conducted based on: gender, whether or not it was a student's first semester, college of enrolment, and the year in which the student was surveyed. Comparisons were made for each of the 12 scales: Intrinsic Motivation, Autonomous Motivation, Controlling Motivation, Autonomy Satisfaction, Competence Satisfaction, Mastery-Approach Goals, Performance-Approach Goals, Performance-Avoidance Goals, PWB, SWB, Academic Dedication, and Academic Achievement, as well as for the 11 sub-scales: PWB-Self Acceptance, PWB-Positive Relations, PWB-Autonomy, PWB-Environmental Mastery, PWB-Purpose in Life, PWB-Personal Growth, SWLS, PA, NA, Dedication 2012, and Dedication 2013.

Gender. In total, 112 males and 272 females were surveyed. Of the 12 scales, students only differed significantly by gender for competence satisfaction such that males (mean = 3.72) felt more competent at university than females (mean = 3.44), $t(262.14) = 4.471$, $p < 0.001$, $SE = 0.064$. Of the 11 sub-scales, males scored significantly higher than females on negative affect (PANAS subscale; means 3.88 and 3.64, respectively), $t(382) = 2.925$, $p = 0.004$, $SE = 0.083$ and autonomy (PWS subscale; means 3.77 and 3.53), $t(382) = 3.553$, $p < 0.001$, $SE = 0.068$ but were significantly lower than females on positive relations (PWS subscale; means 3.85 and 4.02), $t(382) = -2.127$, $p = 0.034$, $SE = 0.08$. Because there were relatively few gender differences, data was collapsed across gender in further analysis.

First Semester Status. In total, 92 students indicated that it was their first semester of university and 196 indicated that it was not (2012 participants were not given this survey item). First year students had significantly higher academic achievement than non first year students (means 3.77 and 2.88), $t(285) = 7.275$, $p < 0.001$, $SE = 0.120$, but had significantly lower PWB (means 3.83 and 4.00), $t(285) = -2.271$, $p = 0.024$, $SE = 0.052$, and scored significantly lower on the autonomy subscale of the PWBS (means 3.48 and 3.64), $t(285) = -2.057$, $p = 0.04$, $SE = 0.077$. First year and non-first year students did not significantly differ on any other scale or sub-scale and therefore data was collapsed across this variable in further analysis.

College of Enrolment. A one-way ANOVA was conducted to determine whether students significantly differed on any scale or subscale based on their college of enrolment. In total, 267 students were enrolled in the college of Arts and Science, 77 in the Edwards School of Business (ESB), 25 in Kinesiology, and 16 in another college (Agriculture, Engineering, Education, or Open Studies). Of the 12 scales compared, significant differences were found for mastery goals,

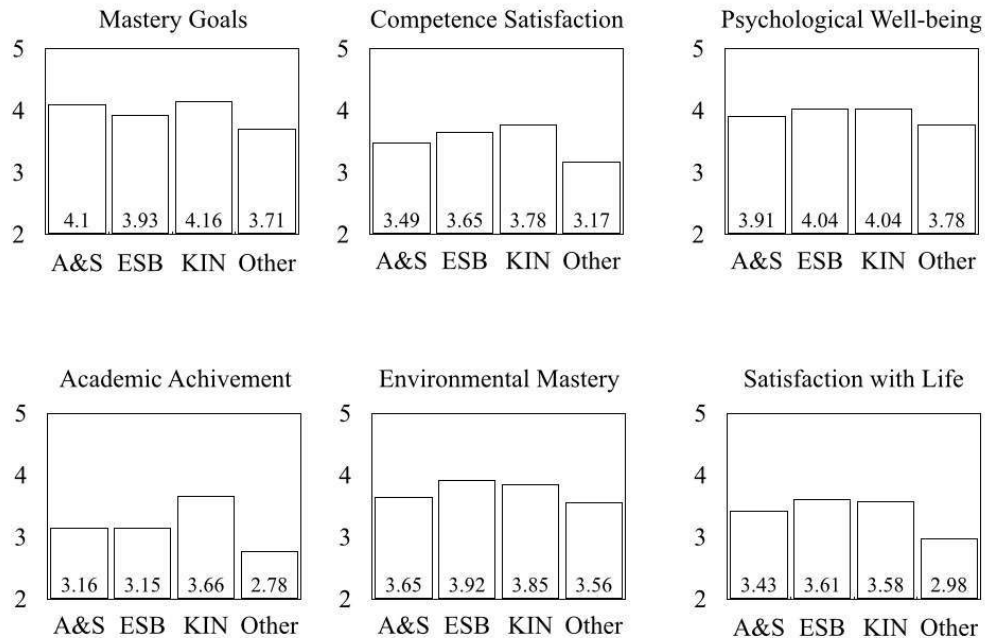


Figure 4-1. Means for all scales and subscales for which there was a significant effect of college of enrolment (A&S = Arts and Science; ESB = Edwards School of Business; KIN = Kinesiology).

$f(3,381) = 3.05, p = 0.029$, competence satisfaction, $f(3,381) = 4.33, p = 0.005$, PWB, $f(3,381) = 3.03, p = 0.029$, and academic achievement, $f(3,381) = 2.84, p = 0.038$. Of the 11 sub-scales, significant differences were found for the SWLS, $f(3,381) = 3.34, p = 0.019$, and the environmental mastery sub-scale of the PWS, $f(3,381) = 3.25, p = 0.022$.

A series of Independent T-tests were then conducted to determine mean differences between students of different colleges on these variables. Means of variables by college of enrolment are given in Figure 4-1. Students in Arts and Science scored higher on mastery goals than students in ESB, $t(342) = 2.032, p = 0.043$, but lower than students in “other” colleges, $t(283) = 2.304, p = 0.022$. Students in Kinesiology scored higher on competence satisfaction than students in Arts and Science, $t(292) = -2.117, p = 0.035$, and those in “other” colleges, $t(39) = 2.626, p = 0.012$; students in ESB also scored higher on competence satisfaction than students

in Arts and Science, $t(89) = -2.285, p = 0.024$, and “other” colleges, $t(89) = 3.05, p = 0.003$.

Students in ESB scored higher on Psychological well-being than students in Arts and Science, $t(342) = -2.357, p = 0.019$, and higher than those in “other” colleges, $t(89) = 2.286, p = 0.025$.

Students in the college of Kinesiology had higher academic achievement than those in Arts and Science, $t(292) = -2.363, p = 0.019$, ESB, $t(98) = -2.43, p = 0.017$, and “other” colleges, $t(39) = 3.308, p = 0.002$.

Considering the PWB sub-scale of environmental mastery, students enrolled in ESB scored significantly higher than those in Arts and Science, $t(342) = -2.834, p = 0.005$. Students in “other” colleges had significantly lower satisfaction with life than students in Arts and Science, $t(283) = 2.274, p = 0.024$, ESB, $t(89) = 2.712, p = 0.008$, and Kinesiology, $t(39) = 2.32, p = 0.026$. Based on this analysis, it appears the context of different colleges may be associated with different motivational constructs among students; thus, the sample in the current study reflects multiple academic contexts. However, insufficient numbers of students in each college limited analysis of motivational mechanism across these different contexts. To ensure adequate sample size for further analysis, data was collapsed across college of enrolment.

Time Surveyed. A one-way ANOVA was also conducted to determine whether students significantly differed on any scale or subscale based on the time at which they were surveyed and follow-up t-tests were conducted. In total, 97 students were surveyed in 2012 winter term (sub-sample 1), 248 were surveyed in 2013 fall term (sub-sample 2), and 40 were surveyed in 2013 winter term (sub-sample 3). Of the 12 scales, the only significant difference between sub-samples was on academic achievement, $F(2, 382) = 4.499, p = 0.012$, such that those from sub-sample 3 scored significantly higher than those from sub-sample 2, $t(286) = -2.889, p = 0.004$,

and 1, $t(135) = -2.710, p = 0.008$. The academic achievement of those from subsamples 1 and 2 did not significantly differ. Of the 11 sub-scales, the only significant difference between students surveyed at different times was on the PWS sub-scale of personal growth, $f(2,382) = 3.947, p = 0.02$, such that those surveyed at Time 1 scored significantly higher than those surveyed at Time 2, $t(343) = 2.035, p = 0.043$, and time 3, $t(135) = 2.913, p = 0.004$. Students surveyed at Times 2 and 3 did not significantly differ on personal growth. Because significant differences existed on only 2 of 23 possible scales, data was collapsed across time surveyed for further analysis.

Correlational Analysis

Pearson's correlations computed between all variables are shown in Table 4-4. H1 was partially supported in that mastery-approach goals were positively related to PWB, SWB, and dedication, performance-approach goals were positively related to academic achievement, and performance-avoidance goals were negatively related to SWB. However, contrary to previous research, mastery-approach goals were also positively related to academic achievement. Similarly, performance-approach goals were positively correlated with academic dedication which was not predicted by H1; however, this relationship was not as strong as the performance-approach goal and academic achievement relationship. Furthermore, performance goals were not related to PWB, dedication, or achievement despite the negative relationships hypothesized in H1.

Strong correlational support was also found for H2 in that all SDT constructs were interrelated in the manner predicted: autonomy satisfaction, competence satisfaction, intrinsic motivation, and autonomous motivation were all negatively correlated with controlling motivation and positively correlated with each other; autonomous motivation and competence

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Age	19.64	1.01	-										
2. Years in university+	1.38	0.83	.264***	-									
3. Mastery-Approach Goal	4.06	0.67	n.s.	n.s.	-								
4. Performance-Approach Goal	3.89	0.89	n.s.	.298***	-								
5. Performance-Avoidance Goal	3.72	1.07	n.s.	.489***	-								
6. Autonomy Satisfaction	3.38	0.55	n.s.	.178***	n.s.	-.104*	-						
7. Competence Satisfaction	3.52	0.65	n.s.	.168**	.157**	.579***	-						
8. Intrinsic Motivation	2.22	0.95	.125*	n.s.	.374***	.343***	.333***	-					
9. Autonomous Motivation	4.12	0.63	n.s.	.349***	.138**	.227***	.284***	.267***	-				
10. Controlling Motivation	2.65	1.03	-.129*	n.s.	.129*	-.285***	-.224***	-.236**	-.318***	-			
11. Psychological Well-being	3.94	0.41	n.s.	.143*	n.s.	.402***	.486***	.208***	.357***	-.256***	-		
12. Subjective Well-being	3.49	0.55	n.s.	.162**	-.154**	.554***	.665***	.342***	.343***	-.215***	.697***	-	
13. Academic Dedication	4.39	0.67	n.s.	.282***	.160**	.316***	.448***	.170**	.295***	-.213***	.327***	.365***	-
14. Academic Achievement	3.17	1.01	-.105*	n.s.	.292***	n.s.	.241***	n.s.	.104*	n.s.	n.s.	.114*	.104*

* p < .05. ** p < .01. *** p < .001. n.s. indicates not significant

+ Data on number of years in university was only collected from survey participants in samples 2 and 3 (n = 288)

satisfaction were positively correlated with all outcome variables; intrinsic motivation and autonomy satisfaction were positively correlated with PWB, SWB, and academic dedication; and, controlling motivation was negatively correlated with PWB, SWB, and academic achievement (Table 4-4). Contrary to H2, academic achievement was not related to autonomy satisfaction or intrinsic and controlling motivation.

Regarding the integrative model, H3 was also partially supported by correlational data in that mastery approach goals were positively related to autonomy and competence satisfaction as well as to intrinsic and autonomous motivation, but were negatively related to controlling motivation. In further support of H3, performance-approach goals were positively related to competence satisfaction and autonomous motivation while performance-avoidance goals were positively related to controlling motivation and negatively related to autonomy satisfaction. However, correlational support for H3 was not entirely complete as performance-approach goals were not related to autonomy satisfaction, intrinsic motivation, or controlling motivation and performance-avoidance goals were not related to competence satisfaction, intrinsic motivation, or autonomous motivation. The majority of correlations are in the predicted directions and thus the current data set is suitable for more sophisticated analysis.

Path Analysis

Path Analysis was then conducted using *EQS 6.2* software to directly test the models predicted by each hypothesis. Specifically, five models were tested: Model 1 tested the goal-outcome links of AGT (H1); Model 2 tested the relationships between SDT needs and motivation types (H2); Model 3 tested the relationships between SDT constructs and outcome variables (H2); Model 4 tested the relationships between SDT and AGT variables (H3); and Model 5 tested

the integrative model considered in interview analysis (H3; Study 2). The five hypothesized models are given in Figures 4-2 to 4-6; all variables were measured directly and the absence of a line connecting variables implies lack of a hypothesized direct effect.

Before testing the models, path analysis assumptions were tested in order to ensure reliability of resulting analysis. The current sample size ($n = 385$) is sufficient for testing models with up to 38 parameters. The parameters estimated in the original models are 18, 12, 39, 26, and 38 for Models 1, 2, 3, 4, and 5, respectively; thus, the sample size is sufficiently large to test all but Model 3 for which special modifications were made. There is no evidence of multicollinearity in the data as the determinant of the inputted variance-covariance matrix is greater than 0.0001 for all models (0.19451D-02, 0.19779D-01, 0.36519D-02, 0.74494D-04, and 0.19360D-03 for Models 1, 2, 3, 4, and 5, respectively). There is also no evidence of a specification error as the residuals of the variance-covariance matrix are small and centred around 0 for all models. However, the assumption of univariate normality is potentially violated for all variables other than autonomy satisfaction as previously discussed (Table 4-3).

The goodness of fit of each model was tested using both residual based and comparative fit indices. The criteria used to determine goodness of fit for each index is given in Table 4-5 (Ullman, 2013). Because X^2 is often overly sensitive to small differences, especially when the sample size is large, each model was determined to be a good fit if at least one index met criteria (i.e. all indices need not reach criteria in order for model to be deemed a good fit). Although the

Index:	Residual Based Fit Indices		Comparative Fit Indices		
	X^2	sRMR	CFI	RMSEA	NFI
Criteria for good fit:	$p > 0.05$	< 0.08	> 0.95	< 0.06	> 0.9

CFI and sRMR are the most common fit indices reported in the research literature, all five indices are reported below in

order to provide a full picture of the model's fit. The estimated effect size is also reported in terms of R-squared (i.e. the square of the path coefficient) which is the estimate of the proportion of variance of the measured variable that is shared with the underlying factor. In addition, standardized and unstandardized coefficients are reported (Ullman, 2013).

The five models were tested using the following procedure: 1) the original hypothesized model was tested first; 2) if the original model did not significantly fit the data, paths were added or removed post hoc according to results of the Wald and Lagrange Multiplier tests such that only additions or deletions that make theoretical sense were considered and only one addition or deletion was implemented at a time; 3) if modified models failed to fit the data and further modifications appeared unlikely to improve fit indices, the error variances of endogenous variables were allowed to correlate in the original model such that error variances of variables with the highest correlation were tried first. Allowing error variances to correlate in path analysis is justified when variables are conceptually similar (e.g. PWB and SWB) or related and thus are likely influenced by the same outside factors that also affect error variances similarly (Smolkowski, 2007). In cases where Wald and Lagrange Multiplier test suggestions were theoretically sound, these deletions or additions were implemented which often improved the fit further according to the chi square difference test for comparing nested models. Results of the originally hypothesized and best fitting, theoretically sound models are given below; fit indices and justifications for all other models tested are provided in Appendix D.

H1: The goal-outcome relationships of AGT will be supported. Model 1 was tested to determine whether survey data support the goal-outcome relationships predicted by AGT. Thus, all four outcome variables were endogenous while the three achievement goal variables were

exogenous. The original model with standardized path coefficients is given in Figure 4-2A. Without correlating error variances, the data did not appear to fit this model $X^2(10, N = 385) = 271.334, p < .001$, sRMR = .135, CFI = .545, RMSEA = .261, NFI = .545; however, when allowing the error variances of PWB and SWB to correlate, the model does significantly fit the data, $X^2(9, N = 385) = 47.684, p < .001$, sRMR = .076, CFI = .933, RMSEA = .106, NFI = .92., thus supporting the model and AGT. PWB and SWB were highly correlated ($r = .697, p < 0.001$) and thus allowing their error variances to correlate when testing Model 1 is justified. As hypothesized, mastery-approach goals significantly positively predicted PWB, SWB, and dedication (unstandardized coefficients = .161, .277, and .282, respectively, all at $p < .05$) and performance-approach goals significantly positively predicted achievement (unstandardized coefficient = .446, $p < .05$). Performance-avoidance goals significantly negatively predicted SWB and achievement (unstandardized coefficients = -.077 and -.198, respectively, $p < .05$) as hypothesized but did not predict PWB or dedication (unstandardized coefficients = -.036 and .009, respectively, $p > 0.05$).

A series of post hoc modifications were performed in an attempt to develop a better fitting model and further advance AGT. On the basis of the Wald test, the correlation between mastery-approach and performance-avoidance goals was dropped as it contributed only 0.06 to chi square. Removal of this path is supported by past research which indicates that mastery-approach and performance-avoidance are conceptually independent goal types. On the basis of the Lagrange multiplier test, paths between performance-approach goals and SWB as well as performance-approach goals and dedication were added as they contributed 3.019 and 2.904 to X^2 , respectively. Past research on the relationship between performance-approach goals and

positive academic outcomes has been considerably mixed and thus the inclusion of these paths in the model is supported by existing research.

When allowing PWB and SWB error variances to correlate, these modifications significantly improved the model (Figure 4-2B), $X^2(8, N = 385) = 43.469, p < .001$, sRMR = .073, CFI = .938, RMSEA = .107, NFI = .927, $X^2_{\text{difference}}(1, N = 385) = 4.215, p < .01$. As in the original model, mastery-approach goals significantly positively predicted PWB, SWB, and dedication (unstandardized coefficients = .161, .265, and .251, respectively, all at $p < .05$) and performance-avoidance goals significantly negatively predicted SWB and achievement (unstandardized coefficients = -.09 and -.198, respectively, $p < .05$) but did not predict PWB or dedication (unstandardized coefficients = -.036 and -.022, respectively, $p > 0.05$). As hypothesized, performance-approach goals continued to significantly positively predict achievement (unstandardized coefficient = .446, $p < .05$) but did not predict SWB or dedication (unstandardized coefficients = .031 and .077, respectively, $p > 0.05$). Therefore, this modified model further supports the goal-outcome links of AGT. However, goals accounted for a relatively small proportion of the variance in academic outcomes: mastery-approach and performance-avoidance goals accounted for only 8% of the variance in PWB; performance-approach and performance-avoidance goals accounted for 11.9% of the variance in achievement; and all three goal types accounted for 14% of the variance in SWB and 8.7% of the variance in dedication.

Further in line with the Lagrange multiplier test, the path from performance-approach goals to PWB was also added; although the resulting model was a good fit to the data, $X^2(7, N = 385) = 41.755, p < .001$, sRMR = .07, CFI = .94, RMSEA = .114, NFI = .93, it was not a significant

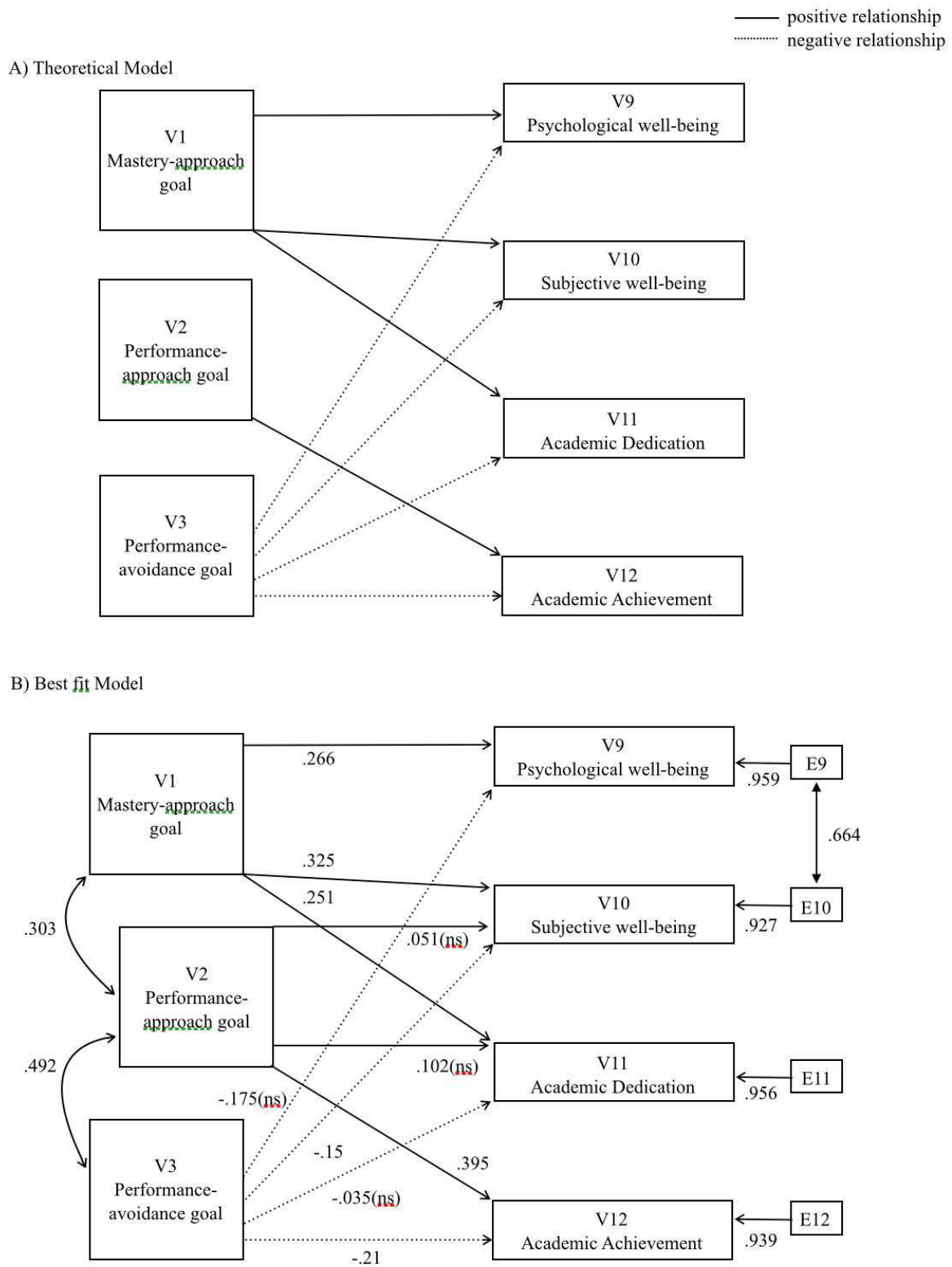


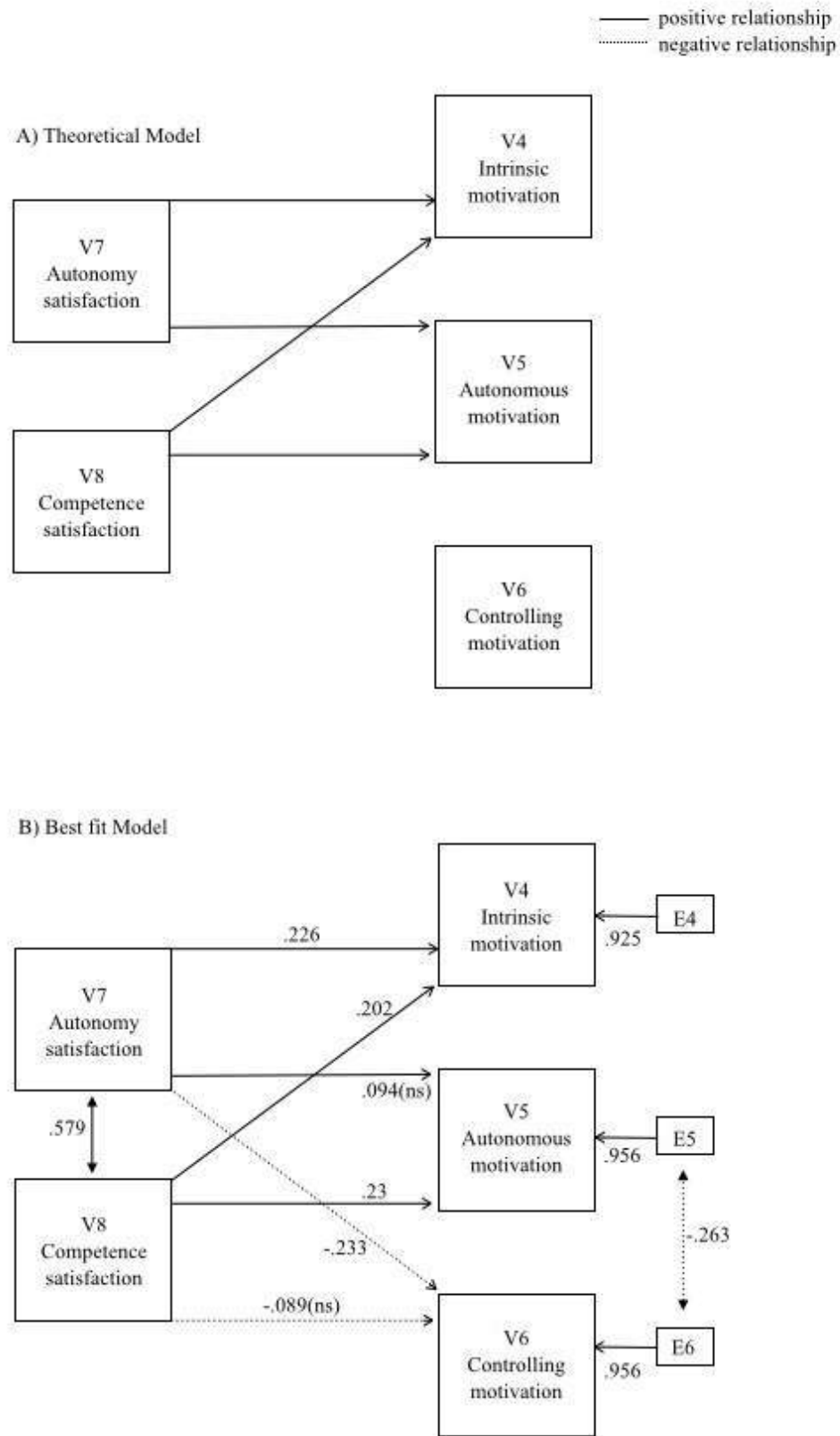
Figure 4-2. Model 1 developed to test Hypothesis 1; theoretical (A) and best fit (B) models with standardized path coefficients shown. Fit indices given in text. All paths significant at $p < .05$ unless otherwise indicated.

improvement over and above the modified model depicted in Figure 4-2B, $X^2_{\text{difference}}(1, N = 385) = 1.714, p > .1$, and the path coefficients between performance-approach goals and all outcome variables other than achievement remained non-significant. Allowing the error variances of PWB and dedication as well as the error variances of SWB and dedication to correlate further improved the model fit, $X^2_{\text{difference}}(2, N = 385) = 43.372, p < .001$. However, correlations of error variances should be used conservatively as it is anti-theoretical to include them just to make a model fit (Smolkowski, 2007); therefore, the model depicted in Figure 4-2B and discussed above is considered to be the best fitting model.

H2: The relationships proposed by SDT will be supported in the current sample.

Models 2 and 3 were tested to determine whether the data support SDT; Model 2 tested the relationships among SDT constructs such that intrinsic, autonomous, and controlling motivation were endogenous variables predicted by autonomy and competence satisfaction and Model 3 tested the relationships between SDT constructs and outcomes such that the four outcome variables (PWB, SWB, dedication, and achievement) were endogenous predicted by all five SDT variables (intrinsic, autonomous, and controlling motivation as well as autonomy and competence satisfaction).

Model 2. The original hypothesized model is given in Figure 4-3A. The data did not immediately appear to fit this model $X^2(3, N = 385) = 43.96, p < .001, sRMR = .081, CFI = .872, RMSEA = .819, NFI = .867$; however, when allowing the error variances of autonomous and controlling motivation to correlate, the model does significantly fit the data, $X^2(2, N = 385) = 16.523, p < .001, sRMR = .052, CFI = .955, RMSEA = .138, NFI = .95$., thus supporting the model and SDT. Autonomous and controlling motivation were highly negatively correlated ($r =$



-.32, $p < 0.001$) and thus allowing their error variances to correlate when testing Model 1 is justified. Autonomy satisfaction significantly predicted intrinsic (positively) and controlling motivation (negatively; unstandardized coefficients = .392, and -.439, respectively, at $p < .05$) as predicted but did not predict autonomous motivation (unstandardized coefficients = .094, $p > .05$) and competence satisfaction significantly positively predicted intrinsic and autonomous motivation (unstandardized coefficients = .296, and .224, respectively, at $p < .05$) as predicted but did not predict controlling motivation (unstandardized coefficients = -.142, $p > .05$). Autonomy and competence satisfaction predicted 14.5% of the variance in intrinsic motivation, 8.7% of the variance in autonomous motivation, and 8.6% of the variance in controlling motivation.

A series of post hoc modifications were performed in an attempt to develop a better fitting model. On the basis of the Wald test, the correlation between competence satisfaction and controlling motivation was dropped as it contributed only 2.22 to X^2 ; however, the resulting modified model did not significantly improve the goodness of fit, $X^2_{\text{difference}}(1, N = 385) = 2.214$, $p > .05$. The autonomy satisfaction-autonomous motivation path was also suggested for removal by the Wald test, but this was deemed anti-theoretical due to the conceptual similarity between the two variables and thus this modification was not made. As with Model 1, allowing error variances of additional endogenous variables to correlate further significantly improved the fit of the model (e.g. the original model with all error variances correlated and the competence-controlling path removed resulted in $X^2(1, N = 385) = 2.213$, $p = .127$, sRMR = .017, CFI = .996, RMSEA = .056, NFI = .993), but this addition of error variance correlations purely to improve goodness of fit was deemed anti-theoretical (Smolkowski, 2007). Thus, the original model with correlations between autonomous and

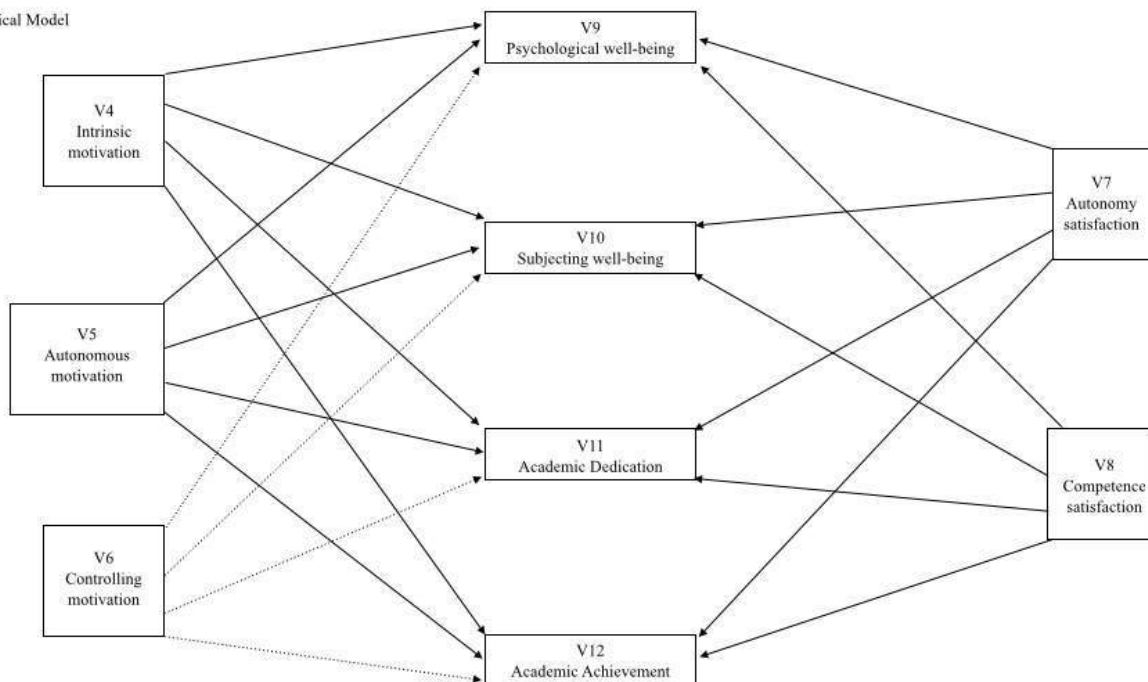
controlling motivation error variances is the best fitting model (Figure 4-3B).

Model 3. As the predicted relationships between SDT variables were supported, testing the predicted relationships between SDT variables and outcomes is justified. The original hypothesized model with standardized path coefficients is given in Figure 4-4A. This original model fit the data well according to one residual based fit index (sRMR = .048) but did not fit well according to chi square ($X^2(6, N = 385) = 136.024$ $p < .001$) and all comparative fit indices: CFI = .868, RMSEA = .238, NFI = .867. When allowing the error variances of PWB and SWB to correlate, the model fit is significantly improved, $X^2(5, N = 385) = 3.408$, $p = .622$, sRMR = .012, CFI = 1, RMSEA = 0, NFI = .997. However, intrinsic and controlling motivation do not behave as predicted as they did not significantly predict any outcome variables (unstandardized coefficients in Table 4-6). Also contrary to SDT predictions, autonomous motivation did not predict achievement and autonomy satisfaction did not predict dedication and negatively predicted achievement. All other paths between SDT constructs and outcomes were as predicted. In this model, SDT constructs predicted 31.1% of the variance in PWB, 51.1% of the variance in SWB, 23.9% of the variance in dedication and 7.9% of the variance in achievement.

Although the original model was a good fit of the data, it required estimating 40 parameters (39 parameters were estimated when PWB and SWB were not correlated) with a sample size of 385. To be robust, path analysis requires a sample size of at least 10 times the number of estimated parameters; thus our test of Model 3 is suspect. To rectify this, two paths were removed on the basis of the Wald test and the remaining 38 parameters were estimated. The paths from controlling motivation to SWB and from intrinsic motivation to dedication were removed as they contributed only .238 and .646 to chi squared, respectively. The resulting model

— positive relationship
 negative relationship

A) Theoretical Model



B) Best fit Model

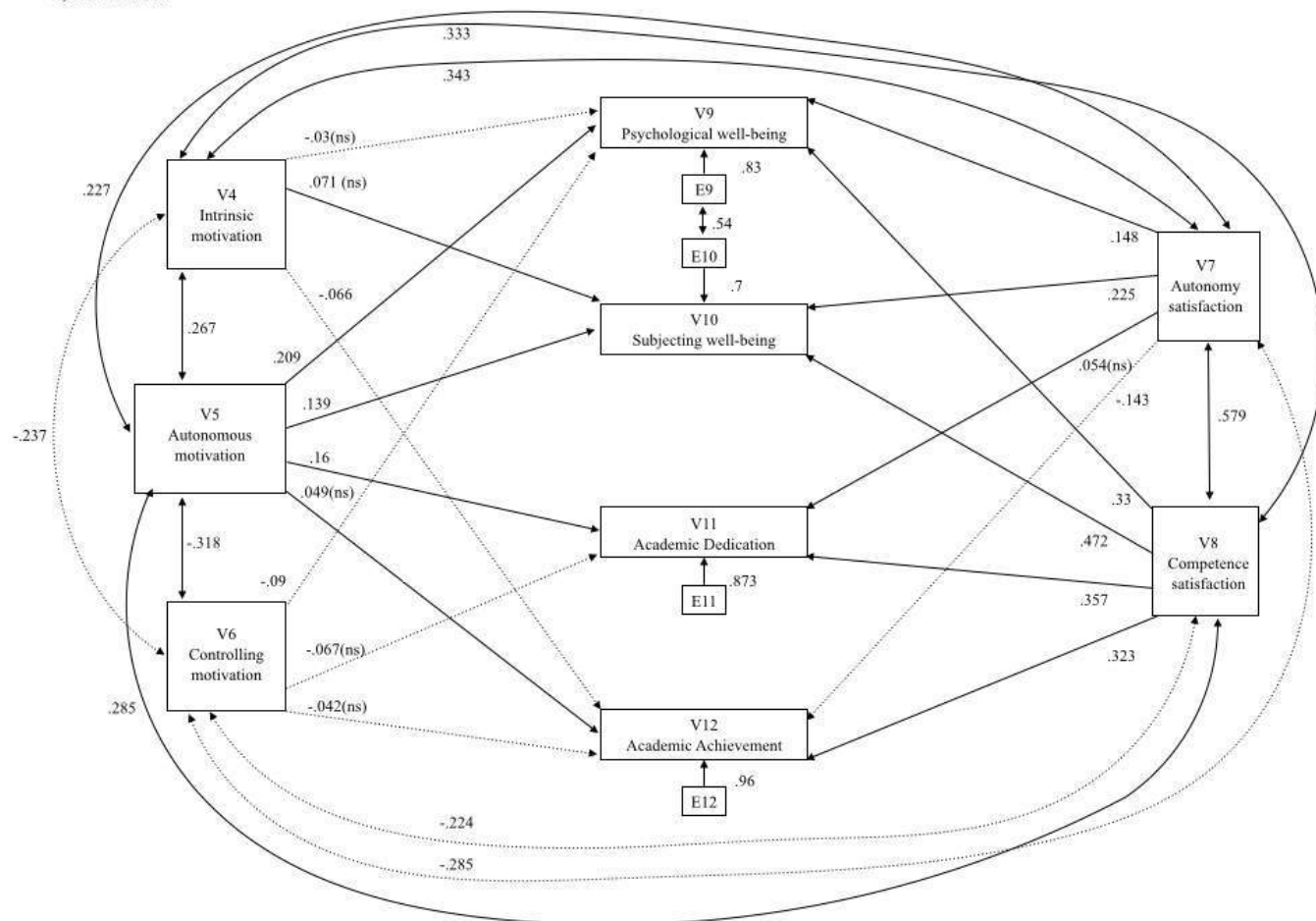


Figure 4-4. Model 3, developed to test Hypothesis 2; theoretical (A) and best fit (B) models with standardized path coefficients shown. Fit indices given in text. All paths significant at $p < .05$ unless otherwise indicated.

Table 4-6. Unstandardized coefficients for Model 3					
A) Unstandardized coefficients for the originally hypothesized Model 3 when PWB and SWB error variances were allowed to correlate					
Dependent Variable	Intrinsic Motivation	Autonomous Motivation	Controlling Motivation	Autonomy Satisfaction	Competence Satisfaction
PWB	-0.012 (ns)	0.137	0.031(ns)	0.112	0.208
SWB	.042 (ns)	0.125	0.01 (ns)	0.229	0.4
Dedication	-.022 (ns)	0.176	- .046 (ns)	0.073 (ns)	0.376
Achivement	-.071 (ns)	0.079 (ns)	- .041(ns)	-0.263	0.502
B) Unstandardized coefficients for the modified Model 3 when PWB and SWB error variances were allowed to correlate					
PWB	-.013 (ns)	0.135	-0.036	0.110	0.208
SWB	.041 (n.s.)	0.121	not estimated	0.226	0.4
Dedication	not estimated	0.171	-.043 (ns)	.066 (ns)	0.371
Achivement	-0.071	0.079 (ns)	-0.041 (ns)	-0.263	0.502
coefficients significant at $p < 0.05$ unless otherwise indicated					

continued fit to the data well, $X^2(7, N = 385) = 4.153$, $p = .762$, $sRMR = .013$, $CFI = .1$, $RMSEA = .0$, $NFI = .996$; standardized coefficients are given in Figure 4-4B and unstandardized coefficients are in Table 4-6. Unlike the original Model 3, intrinsic motivation significantly predicted achievement and controlling motivations significantly predicted PWB in the modified model; the significance of all other paths was the same for both models. This model predicted 31.2% of the variance in PWB, 51.1% of the variance in SWB, 23.8% of the variance in dedication and 7.9% of the variance in achievement. Although this model did not provide a significantly better fit to the data, $X^2_{\text{difference}}(2, N = 385) = 0.645$, $p > .25$, it is considered to be the best model as it does not violate assumptions of sample size given the number of parameters estimated.

H3: AGT and SDT constructs will be related in the manner predicted by Drylund's (2009) integrative model. Models 4 was tested to determine whether the data support

Drylund's (2009) model which integrated SDT and AGT; thus, the five SDT variables were endogenous and the three AGT variables were exogenous such that approach goals (mastery and performance) were expected to be positive predictors of autonomy and competence satisfaction as well as intrinsic, controlling, and autonomous motivation, while performance-avoidance goals were expected to be a negative predictor. Without correlating error variances, the data did not appear to fit this model $X^2(10, N = 385) = 254.3, p < 0.0001, sRMR = .127, CFI = .595, RMSEA = .252, NFI = .597$. Because autonomy and competence satisfaction are theoretically related as well as the exogenous variables with the highest correlation ($r = .579$), their error variances were allowed to correlate in the model. Although this modified model was a significant improvement, $X^2_{\text{difference}}(1, N = 385) = 146.613, p < .001$, it failed to fit the data, $X^2(9, N = 385) = 107.687, p < .001, sRMR = .096, CFI = .836, RMSEA = .169, NFI = .829$. Removing paths according to the Wald test also failed to improve the modified model.

However, allowing additional error variances to correlate improved the model such that when the error variances of autonomy and competence satisfaction, autonomy satisfaction and intrinsic motivation, competence satisfaction and intrinsic motivation, and autonomous and

Dependent Variable	Mastery-approach goals	Performance-approach goals	Performance-avoidance goals
Intrinsic Motivation	0.375	-.004 (ns)	-.021(ns)
Autonomous Motivation	0.339	.031 (ns)	.011(ns)
Controlling Motivation	-0.215	.015 (ns)	0.118
Autonomy Satisfaction	0.181	-.013 (ns)	-.095(ns)
Competence Satisfaction	0.359	0.120	-0.144
coefficients significant at $p < 0.05$ unless otherwise indicated			

controlling motivation were allowed to correlate, the original model was a good fit, $X^2(6, N = 385) = 39.805, p < 0.0001, sRMR = .068, CFI = .944, RMSEA = .121, NFI = .93$. This best fitting model with standardized path coefficients is given in Figure 4-5;

unstandardized coefficients in Table 4-7. As predicted: mastery-approach goals negatively predicted controlling motivation and positively predicted all other SDT variables; performance-approach goals positively predicted competence satisfaction; and, performance-avoidance goals positively predicted controlling motivation and negatively predicted competence satisfaction. However, performance approach and avoidance goals did not significantly predict any other SDT variables. Together, achievement goals predicted 14%, 12.3%, 6.1%, 4.2%, and 17.4% of the variance in intrinsic, autonomous, and controlling motivation as well as autonomy and competence satisfaction, respectively. Allowing additional error variances to correlate further improved the goodness of fit of this model (e.g. allowing 9 error variance correlations resulted in

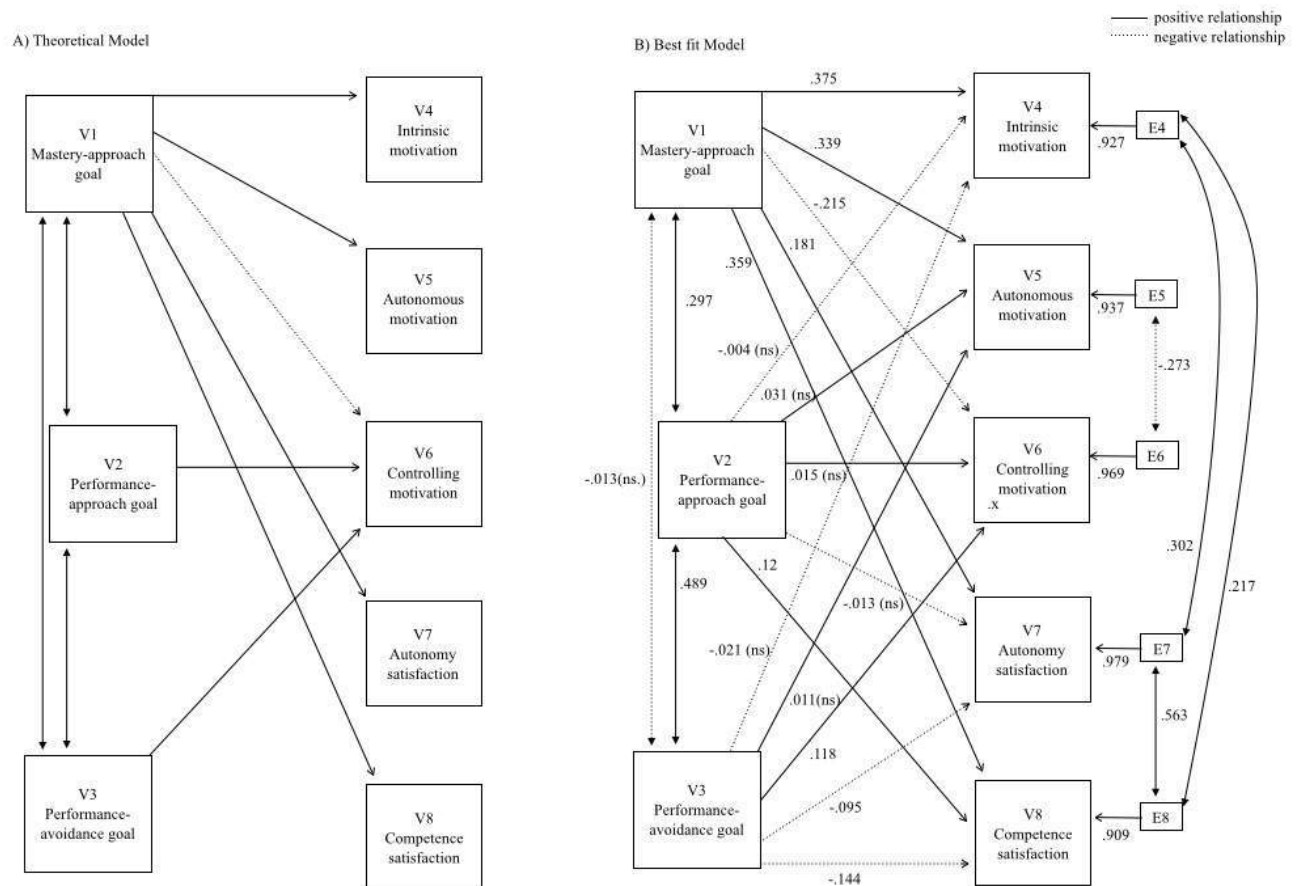


Figure 4-5. Model 4 developed to test Hypothesis 3; theoretical (A) and best fit (B) models with standardized path coefficients shown. Fit indices given in text. All paths significant at $p < .05$ unless otherwise indicated.

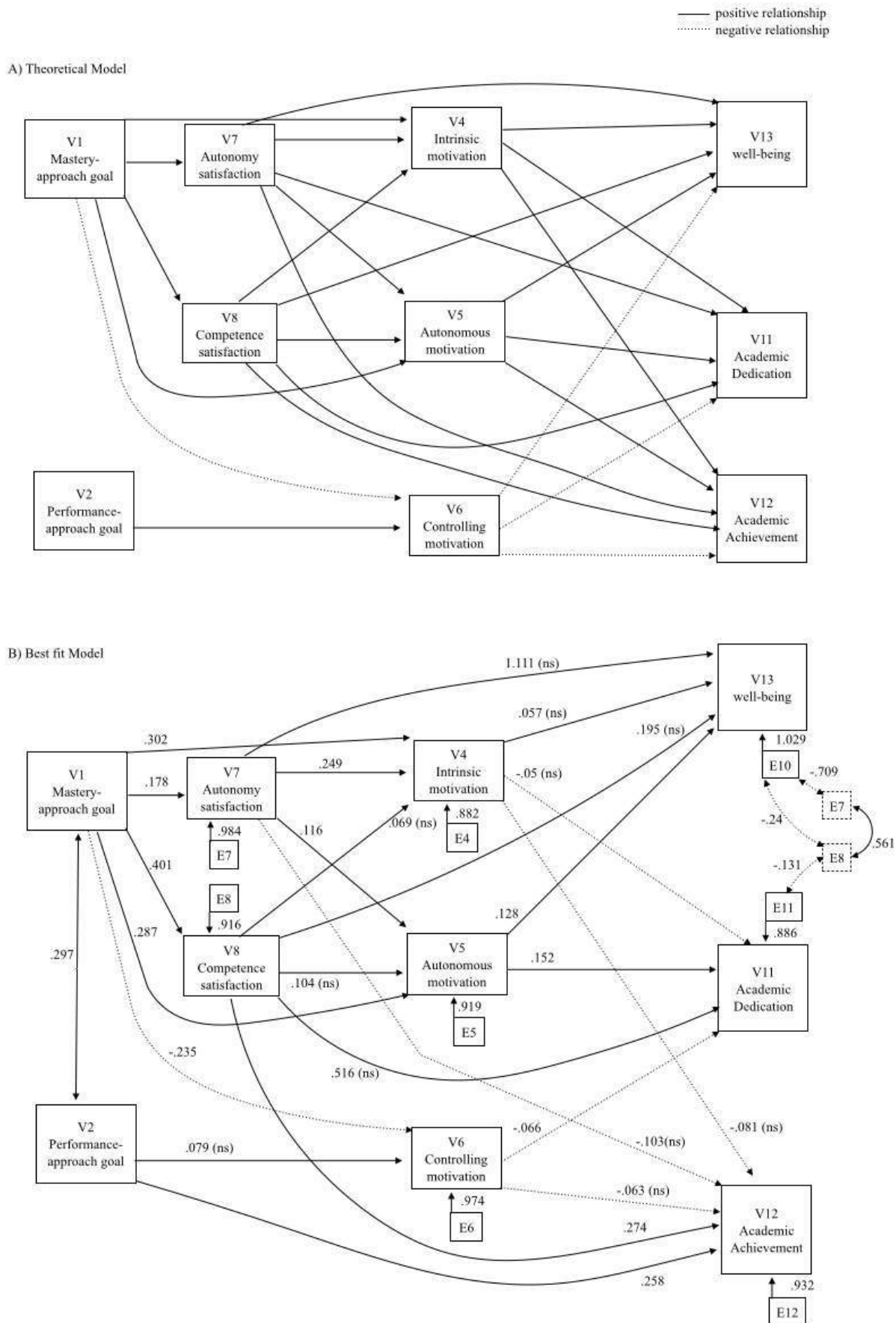
$\chi^2(1, N = 385) = 8.577, p = .003, sRMR = .027, CFI = .987, RMSEA = .14, NFI = .986$ and $\chi^2_{\text{difference}}(5, N = 385) = 31.228, p < .01$ when compared to the modified model in Figure 4-5; there is insufficient degrees of freedom to allow all possible correlations of error variances); however, as stated previously, the addition of error variance correlations purely to improve fit is considered anti-theoretical.

Model 5: Integrative AGT-SDT Model and Outcomes. Finally, Model 5 was developed as an initial test of the integrative model which proposes that AGT variables influence academic outcome through their effects on SDT variables. This model was also developed as a comparator to interview data; therefore, PWB and performance-avoidance variables were not included in the model as these variables were not included in the interviews (justification to follow). Removing these variables also simplified the model, allowing it to be tested with the current sample size. The original model, based on Drylund's (2009) theorizing and existing research on academic outcomes is depicted in Figure 4-6A. This model was a poor fit to the data $\chi^2(20, N = 385) = 262.45, p < .001, sRMR = .136, CFI = .732, RMSEA = .178, NFI = .723$ and was not improved by adding correlations between error variances of variables most highly correlated (SWB and competence satisfaction, $r = .66$), $\chi^2_{\text{difference}}(1, N = 385) = 1.706, p > .1$.

After a series of model modifications supported by the Lagrange multiplier and Wald tests (see Appendix D for all models tried), the best fitting model was found by: 1) allowing the error variances of highly correlated variables to correlate in the model; this included: SWB and competence, competence and autonomy, autonomy and SWB, and competence and dedication (variables correlated at $r = .66, .58, .55$, and $.45$ and error variances correlated at $r = -.24, .561, -.709$ and $-.131$, respectively); 2) adding paths from performance-approach goals directly to

achievement (theoretically supported by considerable research) and from mastery-approach goals directly to controlling motivation; 3) removing paths from autonomous motivation to achievement, controlling motivation to SWB, and autonomy satisfaction to dedication. This modified model (Figure 4-6B) provided a good fit to the data, $X^2(17, N = 385) = 65.197, p < .001$, sRMR = .063, CFI = .947, RMSEA = .086, NFI = .931 (standardized path coefficients in figure 4-6B). Not removing the paths stated above also resulted in a fitting model, $X^2(14, N = 385) = 63.987, p < .001$, sRMR = .064, CFI = .945, RMSEA = .096, NFI = .933, that was not significantly better than the model in Figure 4-6B, $X^2_{\text{difference}}(3, N = 385) = 1.21, p > .25$; however, this model required the estimation of 41 parameters and thus violated the assumption of adequate sample size. Therefore, the modified model in Figure 4-6B is considered the best fitting model as it estimated only 38 parameters. Further modifications to this model, including additional error variance correlations do not improve its fit.

As predicted, mastery-approach goals positively predicted autonomy and competence satisfaction (unstandardized coefficients = .178 and .401, respectively, at $p < 0.05$) with 3.2% of the variance in autonomy and 16.1% of the variance in competence accounted for in this model. Also as predicted, mastery goals and autonomy satisfaction positively predicted intrinsic a (unstandardized coefficients = .302 and .249, respectively, at $p < 0.05$) and autonomous motivation (unstandardized coefficients = .287 and .116, respectively, at $p < 0.05$); contrary to our predictions however, competence satisfaction did not significantly predict intrinsic or autonomous motivation (unstandardized coefficients = .069 and .104, respectively, at $p > 0.05$). Together, mastery goals, autonomy, and competence satisfaction predicted 22.1% and 15.6% of the variance in intrinsic and autonomous motivation, respectively. Further contradicting the



hypothesized integration of SDT and AGT, performance-approach goals did not predict controlling motivation (unstandardized coefficient = .079 at $p > 0.05$). However, mastery-approach goals did negatively predict controlling motivation (unstandardized coefficients = -.235 at $p < 0.05$) which does support the integrative model. Together, mastery and performance-approach goals account for 5.1% of the variance in controlling motivation.

Concerning outcome variables, autonomy satisfaction and intrinsic motivation did not significantly predict any outcome variables (unstandardized coefficients = 1.11 and -.103 for autonomy satisfaction and SWB and achievement, respectively; .057, -.05, -.081 for intrinsic motivation and SWB, dedication, and achievement, respectively; all at $p > 0.05$) and competence satisfaction only predicted achievement (unstandardized coefficient = .274 at $p < 0.05$) while controlling motivation only predicted dedication (unstandardized coefficient = -.066 at $p < 0.05$). Autonomous motivation positively predicted both SWB and dedication (unstandardized coefficient = .128 and .152 for SWB and dedication, respectively, at $p < 0.05$). In total, the model predicted 21.5% of the variance in dedication and 13.2% of the variance in achievement, but none of the variance in SWB.

Discussion

In general, Study 1 results supported the applicability of an AGT-SDT integrative model of motivation to the academic domain. Previously, this model had only been applied to the understanding of exercise motivation. Thus, Study 1 makes positive contributions to the theoretical understanding of academic motivation which increases our understanding of the main constructs that comprise and influence motivation and enhances the practical applications of motivation research. Each hypothesis will now be addressed followed by a discussion of the

primary limitations of the survey design and statistical analysis used in Study 1.

H1: The goal-outcome relationships of AGT will be supported in the current sample

AGT posits that specific achievement goal types are consistently related to certain academic outcomes. Previous research indicates that these goal-outcome relationships are robust across various populations and domains of motivation. Theoretically, mastery-goals are expected to cause increased psychological well-being, subjective well-being, and academic dedication but are expected to have no effect on academic achievement (e.g. marks). Although causality can not be assessed using statistical analysis, correlational and path analysis of Study 1 provided initial evidence to support this claim. Specifically, in the best-fit model developed to test H1, mastery-approach goals positively predicted PWB, SWB, and dedication while no path was added from mastery-approach goals to academic achievement. In this best-fit model, performance-avoidance goals negatively predicted all outcome variables as is expected according to AGT. Theoretically, performance-approach goals were hypothesized to be positively related to academic achievement but unrelated to all other outcome variables; although paths from performance-approach goals to SWB and dedication were added to improve the fit of the model, these paths were not significant when the model was tested as a whole. Thus, performance-approach goals only had a significant, positive prediction on academic achievement as is predicted by AGT.

H2: The relationships proposed by SDT will be supported in the current sample

SDT also posits that motivational constructs are consistently related to certain academic outcomes; specifically, it is hypothesized that autonomy and competence satisfaction as well as intrinsic and autonomous motivation are positively related to all academic outcomes and

controlling motivation is negatively related to all academic outcomes. This hypothesis was supported by path analysis for competence satisfaction and autonomous motivation, both of which positively predicted all outcome variables (PWB, SWB, dedication, and achievement). Although controlling motivation negatively predicted PWB, dedication, and achievement in the best fit model, its effects on dedication and achievement were non significant and its path to SWB was dropped suggesting that external pressures may not statistically affect students as negatively as previously thought when accounting for all other motivation types and needs satisfaction.

Intrinsic motivation also behaved unexpectedly in the best fit model; intrinsic motivation positively predicted SWB but this path was non significant and the path from intrinsic motivation to academic dedication was dropped. In addition, contrary to H2, intrinsic motivation negatively predicted PWB and academic achievement. This suggests intrinsic motivation does not predict positive academic outcomes as was previously thought but may actually predict lower achievement and PWB. Finally, autonomy satisfaction positively predicted PWB, SWB, and dedication as predicted but was found to negatively predict academic achievement when all other variables were accounted for. Thus, the majority (75%) of hypothesized paths from SDT constructs to outcome variables are preserved in the best-fit model while two were removed and three which were predicted to be positive appeared to be negative.

SDT also posits that satisfaction of the needs for autonomy and competence enhances intrinsic and autonomous motivation while hindering controlling motivation. This claim was supported by the current sample as autonomy and competence satisfaction both positively predicted intrinsic and autonomous motivation and negatively predicted controlling motivation

when all five variables were accounted for. Thus, the core tenets of SDT are supported in the current sample, but more work is needed to determine exactly how and in what contexts these motivational constructs influence academic outcomes.

H3: AGT and SDT constructs will be related in the manner predicted by Drylund's (2009) integrative model

Drylund (2009) theorized that achievement goals influence outcome variables through their effects on need satisfaction and motivation types and found support for this integrative model in the domain of exercise motivation. Thus, in order to test the applicability of Drylund's (2009) integrative model to the domain of academic motivation, it was hypothesized that approach goals (mastery and performance) would be positively related to all SDT constructs except controlling motivation, with which it will be negatively related, and that performance avoidance goals will be positively related to controlling motivation but negatively related to all other SDT constructs. All predicted paths were preserved in the best fit model and the majority (73%) were the predicted valence although six were not significant when all other paths were accounted for.

Specifically, mastery-approach goals behaved as predicted in the best-fit model as they significantly, positively predicted intrinsic and autonomous motivation as well as autonomy and competence satisfaction and significantly, negatively predicted controlling motivation. For the most part, performance-avoidance goals also behaved as predicted as they significantly, negatively predicted autonomy and competence satisfaction while positively predicting controlling motivation. However, the path from performance-avoidance goals to intrinsic and autonomous motivation was not significant when all other variables were accounted for suggesting that performance-avoidance goals have a more direct effect on need satisfaction than

motivation types. This finding does not contradict Drylund's hypothesized model as achievement goals are hypothesized to influence need satisfaction which then influence motivation types which ultimately influence outcomes. Finally, the only significant path from performance-approach goals was to competence satisfaction suggesting that the positive effect of performance-approach goals on achievement may be at least partially accounted for by performance-approach goals' positive impact on competence satisfaction as predicted by Drylund (2009). However, as stated previously, path analysis does not provide sufficient evidence to support claims of causality.

As an extension of H3 and an initial test of the coherent integrative model, Study 1 also tested a fifth model that included achievement goals, SDT needs, motivation types, and outcome variables. This model was intended to provide a direct comparison to interview analysis (Study 2) and will thus be discussed in more detail within the general discussion. However, this best-fit model did provide further support for H3 in that, when all 10 variables were accounted for, mastery-approach goals, but not performance-approach goals, continued to positively predict autonomy and competence satisfaction as well as intrinsic and autonomous motivation while negatively predicting controlling motivation. Contrarily, performance-approach goals had a direct, positive effect on academic achievement but no other variables included in this model.

Thus, in response to RQ1, Drylund's (2009) integrative model, based on the conceptual framework of SDT and AGT, appears to hold for the academic motivation of undergraduate students suggesting that this model may represent a causal mechanism responsible for academic motivation of all university students. However, the variable-based approach used in Study 1, which relied on a questionnaire analyzed using statistics, does not allow us to make causal claims

or apply the model to any one individual. These limitations and others will now be discussed.

Limitations of Study 1

Study 1 contains several limitations; these include relatively minor limitations discussed in nearly all survey research such as the potential errors in self-report data and violations of normality as well as major limitations that are also inherent in all survey research but are rarely discussed. These major limitations include the fact that the statistical models do not apply to any one individual, the inability of path analysis to account for reciprocal relationships, and the fact that statistical analysis can not uncover causality between variables.

Minor Limitations of Study 1. As with all survey research, the accuracy of results in this study depends on the accuracy of self-reported responses. Due to the social desirability bias, students may strive to appear especially motivated, competent, and dedicated as these are commonly perceived as positive qualities in Canadian culture. Similarly, student participants may be inclined to exaggerate their academic performance and positive affect when responding to survey items or minimize the extent to which they experience social pressures or negative affect. Although the survey was administered in person and the importance of honest answers was stressed in an attempt to mitigate the effects of the social desirability bias, there is still the possibility that students exaggerated or under-reported their experience of some variables. For example, when comparing self-report and school-record GPA, Zimmerman and Kitsantas (2005) found that over 50% of participants exaggerated their grades. This discrepancy may also exist in the current study.

The accuracy of Study 1 results also depends on the ability of the data to meet all assumptions that allow for statistical analysis. As previously discussed, the current data fails to

meet the assumption of normality needed for path analysis. That is, all but one variable (autonomy satisfaction) was significantly skewed or had significantly non-normal kurtosis and all analysis was conducted using this original, non-normal data. The violation of this assumption is not uncommon when using undergraduate participants as university students do not reflect a random sample from the general population. Indeed, one may logically expect university students to be negatively skewed on variables such as competence satisfaction or autonomous motivation. Nevertheless, many researchers proceed with advanced statistical tests despite violations of this basic assumption as was done in this study. This unrestricted trust in the aptness of statistical methods to reveal “laws” of psychological functioning is referred to as statisticism (Lamiell, 2013; Valsiner, 1986) and is a primary criticism of modern psychological research. Although the qualifier “interpret with caution” is often inserted into such analysis, as was done in this study, the true dangers of using non-normal data in analysis are rarely expanded.

In addition, the current sample is not proportionally representative of gender or college of enrolment as the majority of participants were females (71%) with an undecided or undeclared major (26%). Theoretically, this is problematic as gender and college of enrolment each appeared to influence variables of interest to this study. Specifically, males felt more competent and autonomous (according to the PWS subscale only) at university than females but reported more negative affect and fewer positive relationships with others (PWS subscale) than females, a finding that warrants further study in itself. In addition, significant differences were found between students from different colleges in levels of mastery goals, competence satisfaction, and satisfaction with life. These differences in gender and college of enrolment indicate that one’s academic or personal context may greatly influence the degree to which he or she experiences

motivational constructs and their effects. As is commonly done in survey research, these contextual nuances were ignored by combining all participants into a single sample for the pragmatic purpose of obtaining a sample size sufficient for advanced analysis.

Major Limitations of Study 1. Psychological researchers often prefer aggregate data taken across many subjects and distrust conclusions drawn from a single participant because we expect idiosyncrasies within individuals to be eliminated once data is averaged between participants (Valsiner, 1986). Ironically, it is precisely this elimination of idiosyncrasies or “errors” that prevents aggregate data from predicting the behaviour of any unique individual and limits its usefulness in applied settings. That is, results obtained from conglomerate samples generalize only to an abstract individual who represents the ideal, generic, or average participant; this participant does not actually exist within the sample or in reality (Valsiner, 1986). Consequently, all results obtained from the current student sample can not be effectively applied to any one student but rather apply only to the generic, “average” student. Thus, Study 1 supports the existence of the integrative SDT-AGT within this abstract student but can not assess whether this model applies to any specific student. This inability of Study 1 to apply to any one individual within the current sample is a key criticism of survey research and statistical analysis in general. Indeed, this limitation contradicts the very goal of psychological research which is to reveal general laws that explain the behaviour and psychological functioning of individuals (Valsiner, 1986).

Researchers are often tempted to use knowledge regarding how two variables are correlated in a large *sample* to predict an *individual's* score on one of the variables. For example, it is tempting to predict that a student who sets performance goals will have high academic

achievement because the two variables are correlated within the sample. However, this logic is mathematically false unless the two variables are perfectly correlated which is rarely the case in psychology (Lamiell, 2013). Thus, the usefulness of research that relies on sample-based statistics for individual interventions and treatments is questionable despite the extent of its use in modern psychological research (Lamiell, 2013). This has led to a divide between psychology in clinical setting and the large body of psychological research that relies entirely on sample-based statistics (Barlow, 2009; Valsiner, 1986). That is, clinicians often believe that findings from modern psychological research do not generalize to their patient in his or her specific context (Barlow, 2009). This problem must be mitigated if academic motivation research is to fulfill its promises of improving student motivation and outcomes.

Similarly, the statistical approach used in Study 1 does not permit claims of causality. Rather, statistical analysis accounts for between-subject variances that may reflect necessary or accidental relationships. For example, the between-subjects variation in scores on the mastery-approach goals subscale may account for a statistically significant proportion of variance in scores on the autonomy and competence satisfactions scales, but this does not mean that possessing mastery-approach goals will *cause* students to experience autonomy and competence satisfaction. Similarly, the statistical predictions revealed in Study 1 can not be used to predict future behaviour of students or students' motivation levels in a clinical, counselling, or intervention setting. Nevertheless, the inappropriate use of causal language based on purely statistical analysis is rampant in modern psychological research.

The statistical approach used in Study 1 is also limited in its ability to identify complex relationships between variables to support exploratory analysis. Specifically, when conducting

path analysis, the researcher must set the existence and direction of paths a priori based on previous literature. The theoretical basis of hypothesis testing does not allow one to test all combinations of relationships within a model as the likelihood of committing a Type I error (i.e. a false positive) becomes inflated. This limits the extent to which a researcher may soundly explore any given data set. Furthermore, many real-world relationships between variables are reciprocal rather than unidirectional; that is, competence satisfaction may statistically predict one's academic achievement but it is likely that academic achievement reciprocally influences one's feeling of competence as well. Path analysis does not allow for such reciprocal relationships to be accounted for in path models and the calculations and interpretations of advanced statistical tests that can account for reciprocity are highly complex with limited real world applications.

Finally, although Study 1 supported elements of SDT, AGT, and the integrative model, some of the theoretical predictions did not hold in the statistical analysis. For the purely statistical, variable-based approach, this can be perceived as a “dead-end” as statistical results provide limited opportunity to explain *why* some predictions were supported while others were not. Based on the quantitative data alone, one does not know whether the hypothesized theories are false or whether the convenience sample of university students simply does not allow for the predicted relationships to be extracted. Thus, the statistical approach provides little insight regarding how to proceed with these incongruent findings.

As previously discussed, the persistence of survey research and statistical analysis in psychology despite its inability to predict individual behaviour, make causal claims, or articulate complex, reciprocal relationships is due to statisticism, which Lamiell (2013) refers to as “a

problem, manifested by the stubborn refusal of mainstream thinkers in 20th century ... psychology to reconcile their thinking and practices with the logical fact that population statistics cannot serve as a basis for claims to empirical knowledge about individuals”. Although Lamiell (2013), Barlow (2009), and Valsiner (1986) provide a convincing argument for the failure of statistical research to meet psychologists’ needs, an alternative method to overcome these limitations has not been previously proposed in detail.

Next Steps

Study 1 provided a useful *description* of the between-subject relationships among all variables of interest to this study. This surface level description supported AGT, SDT, and a model that integrates these two theories in the prediction of academic outcomes. According to the critical realist perspective, the next step is to *explain* these surface level descriptions by hypothesizing mechanisms which will provide a better understanding of how academic motivation is produced than is provided by the current statistical associations. Specifically, the survey data of Study 1 relies solely on what can be observed; it is stuck at the domain of the empirical. Therefore, although Study 1 successfully replicated past research and provided support for an AGT-SDT integrative model, it did not add to the understanding of the causal motivation mechanism that exists within individuals in the domain of the real (Akroyd, 2009; Danermark et al., 2001).

Indeed, current academic motivation research, based predominately on survey data and statistical relations, has neared empirical saturation and cannot produce new insights into mechanisms of motivation; therefore, Study 2 takes the next step by applying the critical realist framework to the understanding of academic motivation. That is, Study 2 attempts to uncover

the motivational mechanism existing at the domain of the real rather than continuing to focus only on observable motivation. As discussed, statistics attribute all individual variance to “error” despite the real existence of variations *within* individuals (Manicas & Secord, 1983). Therefore, statistics are useful in providing descriptions, but can not be used to provide explanations. Rather, explanations must be based on retrodution into the dynamic processes that have causal forces within an individual (Danermark et al., 2001; Manicas & Secord, 1983). This retrodution can only be done at the level of the individual student and not on the level of aggregated statistical data (Ackroyd, 2009). For this reason, Study 2 implemented case-based interview analysis of purposefully selected participants from Study 1 in an attempt to extract evidence of motivational mechanisms that are experienced within individual students.

CHAPTER 5

STUDY TWO: CASE-BASED INTERVIEW

The overarching goal of Study 2 is to provide a method capable of facilitating retrodution that can be used by critical realist researchers in any content area. To meet this goal, Study 2 seeks to confirm and then expand the body of knowledge regarding academic motivation by shifting the focus from observable regularities to underlying motivational mechanisms.

Although interview data is still dependent on what can be seen and understood by participants and thus remains at the level of empirical, it provides a better starting point for retrodution than survey analysis as it overcomes the primary limitations of sample-based statistics. Unlike sample-based statistical analysis, analysis of interview data can be used to predict behaviour of specific individuals, is context-specific, and can be used to support causal relationships between constructs (Flybvjerg, 2006; Miles & Huberman, 1994; Valsiner, 1986).

Another improvement of Study 2 over Study 1 is that it allows detailed explanation of the interactions between motivational constructs and academic outcomes as oppose to mere surface level descriptions (Valsiner, 1986). These explanations, based on strategically chosen cases, can then be generalized to other students in similar contexts (Flybvjerg, 2006; Valsiner, 1986).

Therefore, the content-specific goals of Study 2 are the same as Study 1: to test the hypothesized model of motivation that integrates AGT and SDT, to determine the causal effects of motivational constructs on academic outcomes within individuals, and to generalize these effects to allow prediction of other students' behaviour. To clarify, the goal of Study 2 differs from that of most modern qualitative research; most qualitative research is used to initially explore topics by identifying themes or generating theories whereas Study 2 uses existing theories to explore

and infer motivational mechanisms at the individual level. Thus, Study 2 is conceptually driven and is designed to test and expand pre-existing theories.

In general, Study 2 was designed to expand on the findings of Study 1, which was only able to provide surface details regarding how motivational concepts are related between-subjects. Study 2 will explore how these mechanisms are experienced and function within individual students and will extrapolate on this to propose a comprehensive mechanism that may be applied more broadly by comparing qualitative data across multiple students. Specifically, Study 2 had two main purposes: 1) to determine how AGT and SDT constructs are understood and experienced by interviewees; and, 2) to determine whether these constructs are related among interviewees and, if so, how these relationships function.

Method

Participants

Selection Pool. Participants surveyed in 2012 and 2013 fall term (part 1) were asked if they would be willing to participate in a follow-up interview. Before volunteering, all participants were told that those chosen to participate in the interview would receive two additional course credits. Of the 345 Canadian students asked, 35% ($n = 120$) indicated willingness to participate in the follow-up interview. Compared to the 225 students uninterested in participating in the interview, those who indicated willingness to participate scored significantly higher on the personal growth subscale of the PWS, $t(343) = 2.135, p = 0.033$, the positive affect subscale of the PANAS, $t(343) = 2.983, p = 0.003$, intrinsic motivation, $t(343) = 2.523, p = 0.012$, autonomy satisfaction, $t(343) = 2.435, p = 0.015$, and competence satisfaction, $t(343) = 2.503, p = 0.013$. Those willing to participate in the survey also scored significantly

lower on the performance-approach goals scale than those unwilling to participate, $t(207.1) = -2.295, p = 0.023$, but were not statistically different on any other variable measure.

Regarding demographics, those who volunteered to participate in the interview were significantly older than those who did not volunteer (mean ages = 20.33 and 19.38, respectively), $t(343) = 2.876, p = 0.004$, but did not differ by gender or years in university. That is, two-way contingency table analysis using Crosstabs revealed a no significant difference in gender or first year status as 34.5% of female students and 34.6% of male students were willing to participate in the interview, $X^2(1, N = 344) = 0.001, p = 0.98$ (one student did not identify as male or female) and 31.2% of first year students and 35.5% of non first year students were willing to participate in the interview, $X^2(1, N = 248) = 0.221, p = 0.638$ (97 students surveyed in 2012 were not asked whether it was their first year in university). However, Crosstabs did reveal a significant difference of college of enrolment such that a greater proportion of business students (48.6%) volunteered to participate in the interview compared to Arts and Science students (31.6%), $X^2(1, N = 307) = 6.042, p = 0.014$, and students from any other college (28.9%), $X^2(1, N = 108) = 3.137, p = 0.07$; the proportion of Arts and Science students and those from any other college who volunteered to participate in the interview did not significantly differ, $X^2(1, N = 275) = 0.021, p = 0.885$. Therefore, the sample from which interview participants were drawn did not reflect a representative sample of students surveyed; as a result, interview participants selected as critical cases reflect the most critical cases in the sub-sample of willing participants only and may not reflect critical cases within the overall sample of survey students.

Selection Process. Of the 120 potential interview participants, a purposeful sample of 86 were invited to participate in the interview of which 74 declined or did not respond and 12 were

interviewed. Selections were based on survey scores for intrinsic, autonomous, and controlling motivations such that four participants were initially selected to reflect each motivation type while attempting to evenly distribute gender. That is, the four individuals (2 female, 2 male) who scored highest on intrinsic motivation and relatively low on the other forms of motivation were invited as representatives of highly intrinsically motivated people. Similarly, four highly autonomously motivated and four highly controlling motivated individuals were invited for participation. These students were expected to represent extreme cases that would provide the greatest amount of information about motivational constructs (Flyvbjerg, 2006). However, the majority of invited students (86%) declined participation. Therefore, interview participants do not reflect the greatest range of motivation types in the sub-sample of willing participants, but do reflect the greatest range possible. This discrepancy is especially apparent among intrinsically motivated males as the two interviewees intended to reflect this category scored as high on autonomous motivation as on intrinsic motivation.

Table 5-1. Demographic information and survey scores for interview participants. Survey scores range from 0 - 5.

	Primary motivation type	gender	age	intrinsic score	autonomous score	controlling score	College	Major
I1	intrinsic	female	18	5	4.5	1.2	A&S	psych.
I2	intrinsic	female	18	4.3	4.2	2.2	A&S	undecided
I3	intrinsic	male	20	4.3	4.5	1.8	Kinesiology	exercise
I4	intrinsic	male	19	4	4	1	Business	undecided
A1	autonomous	female	18	1	3.7	3	A&S	psych.
A2	autonomous	female	21	2	5	1.8	Kinesiology	exercise
A3	autonomous	male	19	2.3	5	1.7	A&S	undecided
A4	autonomous	male	28	1.3	5	3	A&S	undecided
C1	controlling	female	19	1	3.7	4.7	A&S	undecided
C2	controlling	female	21	1.7	2.8	3.7	Business	accounting
C3	controlling	male	20	4.3	4.2	4.8	Business	undecided
C4	controlling	male	20	2.3	3.2	4	A&S	biochem.

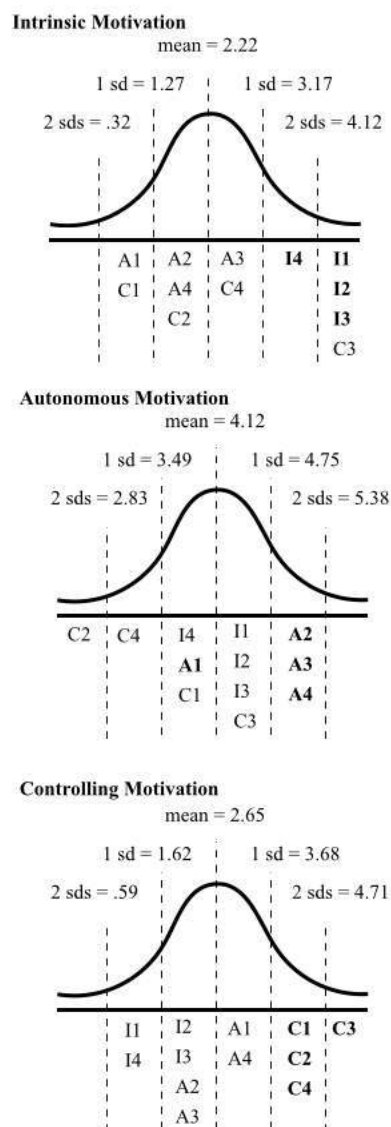


Figure 5-1. Distribution of survey scores for intrinsic, autonomous, and controlling motivation from total sample (n = 385) with interviewees plotted. Range of scores for all variables was 1-5, standard deviations were .95, .63, and 1.03 for intrinsic, autonomous, and controlling motivations respectively.

Interviewed participants.

A total of 12 participants were interviewed; their average age was 20 years (range = 18-28) and the majority (58%) were Arts and Science students. Half were female and half had no chosen major.

Demographic information and survey scores for each interview participant are given in Table 5-1.

Four students represented an individual high in each of intrinsic, autonomous, and controlling motivation. Within each of these sub-samples, two students were male and two were female.

As shown in Figure 5-1, three of the interviewees chosen to represent intrinsic motivation scored over two standard deviations above the mean intrinsic motivation survey score and one scored over one standard deviation above

the mean. These individuals also scored within one standard deviation of the mean on autonomous motivation and below the mean on controlling motivation. Similarly, three of the interviewees chosen to represent autonomous motivation scored over one standard deviation above the mean survey score for autonomous motivation and within one standard deviation of the mean for intrinsic and controlling motivation. The remaining interviewee chosen to represent autonomous motivation scored within one standard deviation from the mean on both autonomous

and controlling motivation but was less than one standard deviation below the mean on intrinsic motivation. Finally, all four interviewees chosen to represent controlling motivation scored above one standard deviation from the mean on this variable and within or below one standard deviation from the mean on autonomous motivation. However, one student chosen to represent controlling motivation also scored two standard deviations above the mean on intrinsic motivation; the remaining students in this subcategory were within or below one standard deviation from the mean on intrinsic motivation. Therefore, although the interviewed participants do not reflect the greatest range in motivation types evident within survey results, they do adequately represent each of the three motivation types.

Measures

The 10 constructs of interest were: motivation types (intrinsic, autonomous, and controlling), achievement goals (mastery-approach and performance-approach), need satisfaction (autonomy and competence) and outcome constructs (dedication, well-being, and achievement). Note that mastery-avoidance goals were not included to avoid conceptual confusion among interviewees as well as to reduce interview length. Similarly, subjective and psychological wellbeing were combined due to the high correlation in part 1 ($r = 0.73$, $p < 0.01$). During implementation and initial analysis of the interviews, the theoretical definition of each construct was identical to that of Study 1 (Appendix A); however, because the goal of the interviews was to determine how constructs are experienced and described by participants, these definitions were expanded in subsequent analysis to reflect the dialogue of interviewees. That is, construct definitions were re-validated and reframed throughout interview results based on how students articulated and discussed each construct. This discussion of construct definitions is expanded in

the between-subjects results below.

In addition to the constructs of interest, 42 potential relationships were also of interest in interview analysis. That is, interviewees were asked whether they perceived a relationship between all constructs and, if so, were asked to fully discuss the functioning of this relationship. All relationships of interest are identified in Table 5-2.

Materials

Each interview schedule consisted of eight main questions that were standard across interviewees. Each main question was accompanied by a series of re-established follow-up questions intended to extend interviewee's responses and address each construct and potential relationships between constructs. The wording of each follow-up question was dependent on the interviewee's survey responses; thus, a unique interview schedule was developed for each interviewee to reflect his or her survey scores. All possible interview questions are given in Figure 5-2. Impromptu probing questions were used to clarify responses or to probe for further depth when needed; these questions were not developed a priori, but were formed by the researcher during the interview in an attempt to phrase the question in a way most likely to be understood by the particular interviewee.

To clarify, these two types of questions corresponded to the two purposes of study 2. The main (i.e. construct-focused) questions were intended to elicit one's personal experience and verbal construction of each construct in order to extend the construct's existing descriptions and definitions given by SDT and AGT. The purpose of the follow-up (i.e. relation-focused)

Table 5-2. relationships of interest to interview analysis

	1	2	3	4	5	6	7
1. intrinsic motivation							
2. autonomous motivation	*						
3. controlling motivation	*	*					
4. autonomy satisfaction	*	*	*				
5. competence satisfaction	*	*	*	*			
6. mastery approach goals	*	*	*	*	*		
7. performance approach goals	*	*	*	*	*	*	
8. academic dedication	*	*	*	*	*	*	*
9. academic achievement	*	*	*	*	*	*	*
10. well-being	*	*	*	*	*	*	*
relationships of interest indicated with a *							

	Interview Question	Construct	Notes
	1. In your own words, why do you engage in academic activities?	Academic Motivation	See whether interviewee spontaneously gives intrinsic, autonomous, or controlling reasons
OR	1A: You indicated in the survey that you derive a lot of interest and enjoyment from your academic activities, could you describe this? - What do you find interesting and enjoyable? - Can you describe a situation that you find especially interesting and enjoyable?	Intrinsic Motivation	Only ask if interviewee does not give intrinsic reasons when answering previous question.
OR	1A: Some students indicate that they derive a lot of interest and enjoyment from their academic activities, but you did not - can you discuss this? - Do you find anything interesting and enjoyable?		
OR	1B: You also indicated that you feel academic activities are important and that you freely choose to engage in them after thorough consideration - could you discuss this? - Why do you feel they are important?	Autonomous Motivation	Only ask if interviewee does not give autonomous reasons when answering previous question.
OR	1B: Some students indicate that engaging in academic activities is important to them and that they freely choose to do so, but you did not - could you discuss this?		
OR	1C: You also indicated that you feel socially pressured to engage in academic activities - can you discuss this? - who or what makes you feel pressured? - in what way does this person/thing pressure you?	Controlling Motivation	Only ask if interviewee does not give controlling reasons when answering previous question.
OR	1C: Some students indicate that they feel socially pressured to engage in academic activities, but you did not - can you discuss this?		
	2. When you are engaging in academic activities, what are some of the goals you set for yourself?	Achievement Goals	Note goals given spontaneously to use as examples in later questions
OR	2A: On the survey, you indicated that you really strive to understand the material in your courses and learn as much as possible, could you talk about this?	Mastery Goals	Only ask if interviewee does not give mastery goals when answering previous question.
OR	2A: On the survey, it did not appear as though your main goal is to understand the material in your courses and learn as much as possible, could you talk about this?		
OR	2B: You also indicated that you strive to do better than the other students in your class - can you talk about this?	Performance Approach Goals	Only ask if interviewee does not give performance-approach goals when answering previous question.
OR	2B: Some students indicate that their goal in their courses is to do better than the other students in their class, but you did not - can you talk about this?		
	3. Do you think that the goals you form in your courses are related to your motives for engaging in academic activities? If YES: Can you give an example or describe a situation in which this has happened?	Achievement Goals -> Academic Motivation	Mastery -> Intrinsic Mastery -> Autonomous Mastery -> Controlling Performance -> Intrinsic Performance -> Autonomous Performance -> Controlling
OR	4. You indicated that at university, you feel free to make your own choices and be yourself - could you elaborate on this? - Why do you think this is?	Psychological Need for Autonomy	
OR	4. You indicated that at university, you do not feel free to make your own choices and be yourself - could you elaborate on this? - Why do you think this is?		
	4A: Do you think your sense of freedom to make your own choices at university is related to the goals you form when engaging in academic activities?	Autonomy -> Goals	
	4B: Do you think your sense of freedom to make your own choices at university is related to your motives for engaging in academic activities?	Autonomy -> Motivation	
OR	5. You also feel competent and capable of doing well at university - could you elaborate on this? - Why do you think you feel this way?	Psychological Need for Competence	
OR	5. You also do not feel competent or capable of doing well at university - could you elaborate on this? - Why do you think you feel this way?		
	5A: Do you think your sense of competence at university is related to the goals you form when engaging in academic activities?	Competence -> Goals	
	5B: Do you think your sense of competence at university is related to your motives for engaging in academic activities?	Competence -> Motivation	
	6. Do you think your feeling of competence is related to your grades?	Competence -> Academic Achievement	
	What do you think is the most powerful contributor to your grades?		
OR	7. On the survey, you also indicated that you fully intend to complete your degree and do not consider dropping out - can you elaborate on this?	Academic Dedication	
OR	7. On the survey, you also indicated that you do not intend to complete your degree and often think about dropping out - can you elaborate on this?		
	What factors do you think contribute the most to this? - Do you think it is related to the goals you set when engaging in academic activities? - Do you think it is related to your motives for engaging in academic activities?		
OR	8. From the survey, I see that in general you are pretty satisfied with your life and have a lot of positive feelings - do you think this is at all related to the types of goals you set or your motives for engaging in academic activities?	Subjective and Psychological Well-being	
OR	8. From the survey, I see that in general you are not satisfied with your life and have a lot of negative feelings - do you think this is at all related to the types of goals you set or your motives for engaging in academic activities?		
	9. Is there anything else you want to add concerning any of the things we've talked about or any other question you remember being on the survey?		

Figure 5-2. All possible interview questions.

questions was to elicit one's perceptions regarding the relationships among constructs in order to better describe these relationships (e.g. causal, positive, negative reciprocal, etc.). The inclusion of relation-focused questions is a unique aspect of the current methodology, as these questions are the only means by which one may actually assess participants' experience of relations between the constructs. As previously discussed, the statistical associations did not provide sufficient information regarding the causality of these relationships.

Procedure

All interviews were conducted individually in a private room at the University of Saskatchewan with only the researcher and interviewee present. Each interview started by defining and explaining the main constructs and terminology. Specifically, students were asked to focus on academic activities such as attending lectures, completing course work, and otherwise engaging with the university when responding as oppose to other non-academic activities they may engage in on campus. Despite the structured nature of these interviews, the interviewees were given opportunities to fully express themselves, to ask questions, and to engage in vernacular dialog with the researcher throughout the interview. Interviews ranged in length from 19 to 51 minutes as participants varied considerably in their reflection and discussion of interview constructs.

Interviews were digitally recorded and transcribed verbatim. They were conducted in the order that best suited interviewee scheduling needs, which was the following: I4, A1, A4, C2, C4, A3, C3, A2, I3, C1, I2, I1. The first five interviews were conducted in 2012 and underwent initial analysis prior to conducting the remaining seven interviews; however, this initial analysis was repeated in its entirety after completion of all interviews in 2013 to ensure consistency of

analysis. All interviewees were given the opportunity to add, alter, or delete text from the interview transcript before signing a transcript release form. Inter-rater reliability of coding was conducted for four interviews; however, the primary purpose of this reliability coding was to articulate a way in which inter-rater reliability could be calculated for this form of qualitative analysis rather than to inform the research per-se. Therefore, the original codings were not always altered in response to inconsistent reliability codings. All transcripts were coded by the author and are available in their entirety upon request.

Analysis

Despite a call for critical realist research from a case-based, ideographic approach (Barlow, 2009; Lamiell, 2013; Valsiner, 1986), there is little guidance concerning how to most effectively analyze interview data for the purpose of uncovering generative mechanisms (Ackroyd, 2009). Therefore, Miles and Huberman's (1994) manual on qualitative analysis was consulted and the procedure of causal mapping was adapted for use in this study. Specifically, Miles and Huberman's logistical procedure of extracting and representing data, which is traditionally used by sociologists to uncover macro social or systemic dynamics, was adapted to uncover individual psychological mechanisms. Interview data was analyzed using both within-case and between case analysis.

Within-case Analysis. Each transcript was subjected to within-case analysis which involved coding the transcript for evidence of each construct or relationships between constructs, extracting these codings into a variable matrix, inspecting each cell of the variable matrix for the type of relationship evident, and articulating the results verbally and graphically.

Coding and creating the variable matrix. First, transcripts were coded for evidence of the

presence or absence of each of the 10 constructs. Although specific interview questions were expected to elicit information on specific constructs, evidence for each construct could be present at any point in the interview transcript. During coding, the researcher was blind to the participants' survey scores. Secondly, transcripts were coded for evidence of the presence or absence of any of the 42 potential relationships of interest. All codings were then extracted from the transcript and arranged in a 52-cell variable matrix (Appendix E). All 52 cells were not populated for every transcript as this depended on interviewee responses.

Inter-rater reliability coding of four transcripts (A2, A4, C2, and C4) was conducted by three volunteer research assistants (I2 and I4 were also intended to undergo reliability coding but limited volunteer resources prevented this). Training of reliability raters involved the reading of SDT and AGT literature, discussion of each of the 10 constructs, and in-person instruction on how to create and populate the variable matrix. Reliability raters were also given a completely coded transcript to review and refer to while coding as well as the theoretical and conceptual definitions of all constructs (Appendix A). Each reliability rater coded a transcript in private and created the corresponding variable matrix (one rater did this for two transcripts). The researcher then compared the text fragments extracted by each research assistant to the text fragments she had extracted for all cells of the matrices. If any portion of the extracted text fragment was the same for both the research assistant and researcher, it was counted as a match. After reliability values were calculated (i.e. the percentage of the researcher's codings that were replicated by the research assistant and the percentage of the research assistant's codings that were replicated by the researcher), all research assistant codings that were not originally replicated by the researcher were considered and included in the remaining analysis if the researcher deemed it appropriate to

do so.

Analysis of variable matrix. Once the 52 cell variable matrix was populated for each interview transcript, each cell of the matrix was analyzed using identical criteria and procedure. The researcher analyzed matrices in a random order and was thus unaware of each interviewee's survey score during analysis. If original codings were deemed inappropriate during this analysis, they were revised as needed. Each of the 10 cells containing codings representing the presence or absence of a constructs were subjected to componential analysis; the following was determined: a) what key words were used by the interviewee to express a high or low experience of this construct? b) what appeared to facilitate the existence of this construct? c) what appeared to impede the existence of this construct? and, d) to what degree does this participant appear to experience this construct (high, moderate, or low)?

Each of the 42 cells containing codings representing relationships between constructs were subjected to structural analysis. First, the relationship evident was labelled using consistent descriptor terms. Six primary and eight secondary types of relationships were identified and used to label each relationship cell of each matrix; all labels are defined in Table 5-3. The primary labels "no relationship", "no data", and "conceptual similarity" are each used to indicate a lack of relationship between constructs while "contextual", "reciprocal", and "unidirectional" are each used to indicate a relationship between constructs. Secondary labels were then applied to better describe reciprocal and unidirectional relationships (definitions in Table 5-3).

Labels were not mutually exclusive and in many cases multiple primary and secondary labels were applied to best reflect the relationship described by the interviewee. During matrix analysis, all potential relationships were considered; that is, outcome constructs were not treated

Table 5-3. Types of relationships used to describe each relationship cell of the variable matrices

	Description
Primary Labels	
NO DATA	student did not discuss relationship or lack of relationship between the two constructs
NO RELATIONSHIP	evidence that no relationship exists between the two constructs
CONCEPTUAL SIMILARITY	participant does not appear to distinguish between the constructs; any apparent relationship between constructs is only because student considers them to be the same thing
CONTEXTUAL	both constructs appear to exist in the same context but do not necessarily influence each other in any way
RECIPROCAL	constructs are related such that Construct A influences Construct B <i>and</i> Construct B also influences Construct A
UNIDIRECTIONAL	constructs are related such that Construct A influences Construct B but Construct B <i>does not</i> influence Construct A
Secondary Labels	
Positive	increase in Construct A is related to an increase in Construct B; decrease in Construct A is related to a decrease in Construct B
Negative	increase in Construct A is related to a decrease in Construct B; decrease in Construct A is related to an increase in Construct B
Conditional	relationship between constructs depends on the level, obtainment, justification, etc. of one of the constructs (if the relationship depends on a third constructs, then it is a mediating relationship, see below)
Facilitating	unidirectional relationship in which changes in Construct A lead only to increases in Construct B; specifically: 1) existence of Construct A facilitates the existence of Construct B but, non-existence of Construct A does not hinder existence of Construct B; OR, 2) the non-existence of Construct A facilitates the existence of Construct B but existence of Construct A does not hinder existence Construct B
Impeding	unidirectional relationship in which changes in Construct A lead only to decreases in Construct B: 1) existence of Construct A impedes the existence of Construct B but, non-existence of Construct A does not promote existence of Construct B; OR, 2) non-existence of Construct A impedes existence of Construct B but existence of Construct A does not promote existence of Construct B.
Mediated	- MEDIATED used when two constructs are mediated by a third construct - MEDIATING used if one construct mediates the “negative effects” or “positive effects” of the other (i.e. all outcome constructs) OR if relationship that is being mediated is not in the matrix (i.e. achievement-> wellbeing relationship)
possibly	used as a qualifier before a secondary description if no interviewee quote(s) exist to entirely support the claim but evidence of relationship is inferred from interpretation of transcript as a whole
Causal	existence or non-existence of one construct can logically be thought to directly cause the existence or non-existence of the other (used in between-case analysis only)

as solely outcome constructs as, at times, these constructs influenced motivational constructs. Similarly, causal relationships from SDT constructs to AGT constructs were considered even though this is contrary to Drylund's (2009) hypothesized model. Any additional comments regarding the relationship including evidence of a 3-way-relationship was also noted in the variable matrix. After analysis of all cells within all matrices, labelling was reviewed to ensure adequate consistency before reporting.

Representation of Matrices for reporting. The analysis of each matrix was reported verbally and graphically. According to Huberman and Miles (1988), causal maps indicating the directional influence that one construct has on another can be extracted from qualitative data because they represent perceived cause-effect relationships as experienced by the interviewee. Therefore, a visual causal map was created to display the relationships between constructs as experienced by each participant, including the degree to which the construct was experienced (Figure 5-3; Appendix F). Only unidirectional and reciprocal relationships are shown on the causal map; contextual and conceptual relationships are not shown. Causal maps also differentiate between positive and negative relationships but do not portray any other secondary label. The degree to which the participant appeared to experience each construct was also compared to his or her survey score for that construct and this comparison is shown in each causal map.

This causal map, coupled with the original variable matrix, was also used to create a descriptive within-case summary to describe how each participant experiences SDT, AGT, and outcome constructs and the relationships that appear to exist between constructs for that specific individual (i.e. how the motivational mechanisms appears to function within this participant).

Because within-case analysis was not the primary goal of Study 2, a descriptive summary was only completed for the first participant. Specifically, between-case analysis offers a better method of testing the hypothesized motivational mechanism and generalizing to other students in a manner analogous to the statistical analysis of Study 1.

Between-case Analysis. Once within-case analysis was completed, the corresponding cells of each participant's variable matrix were combined for between-case analysis which consisted of both componential and structural analysis. Componential analysis involved determining how each construct was understood and articulated by students including the factors that hinder or promote the existence of each construct. Specifically, the codings of each participant were compared and contrasted for each construct to determine consistencies and differences between individual participants' experience of the construct. This allowed a rich description of how motivational constructs and outcome constructs are understood and articulated by students.

Structural analysis involved determining which of the 42 potential relationships between constructs were consistently perceived by students and how these relationships tended to be described by students, including their direction and function. Thus, the consistencies and differences between participants' experiences of each potential relationship were determined (e.g. does the relationship function differently for those who are high vs. low on each construct?, etc.). At this point, causal language is permissible if multiple interviewees discussed a causal relationship between two constructs. All interview results were ultimately compared to the between-subjects survey data and hypothesized model. Causal maps of all interviewees were also combined to form a single causal map that reflects the overall experiences of Canadian students interviewed in this study.

Results

Inter-rater reliability

In general, inter-rater reliability of transcript codings was quite low; within all four transcripts subjected to inter-rater reliability analysis, the researcher coded a total of 608 text fragments of which research assistants replicated only 24%. The proportion of the researcher's codings that were replicated by research assistants for each transcript ranged from 17-53% and the proportion of research assistant's codings that were replicated by the researcher for each transcript ranged from 23-67%. Replication of codings for each construct and construct relationship ranged from 0-100% (see Appendix G for all reliability values). Most inconsistencies between researcher and research assistant codings were a result of research assistants coding very few text fragments. In total, research assistants coded 324 text fragments which is just over half as many as the researcher coded. On average, research assistants did not code 56% of the matrix cells for each variable matrix, compared to the 23% of cells not coded by the researcher. On average, only 6% of matrix cells for which both the researcher and research assistant had codings had 0% consensus while 19% of matrix cells had 100% consensus and 29% of cells had over 50% consensus.

There did not appear to be a pattern regarding which constructs or construct relationships generated high consensus of codings as the cells with 0% and 100% consensus varied for each research assistant. The researcher reviewed all non-consensus codings and adopted the researcher assistant's codings when appropriate; however, this was rare as the researcher generally disagreed with non-consensus research assistant codings. Further training regarding the conceptualization and differentiation of constructs may have significantly improved inter-rater

reliability ratings. A summary of all inter-rater reliability data is given in Appendix G and variable matrices with the researcher and research assistants' codings juxtapose with each other can be obtained from the researcher.

Within-subjects Analysis

Analyzed variable matrices for the 12 interview participants are given in Appendix E; coded interview transcripts are available upon request. Based on the variable matrix analysis, a causal map was created for each interviewee to graphically depict how their personal academic motivation was experienced (Figure 5-3; Appendix F). Based on each participant's variable matrix and causal map, it was possible to create a descriptive summary detailing the functioning of their internal motivational mechanism. Although these descriptive summaries may have key applications for clinical or diagnostic psychology, they do not contribute considerably to the final goal of Study 2. Therefore, the within-case descriptive summary is only given for the first interviewee to demonstrate the potential utility of within-case analysis for future retroduction.

Within-case Descriptive Summary for I1. I1 is an 18 year old female student who is majoring in Psychology; her interview was conducted in March, 2013 and was approximately 30 minutes long. On the survey, I1 scored the maximum (5) on intrinsic motivation which was two standard deviations above the mean intrinsic motivation score for all survey participants. She also scored high on autonomous motivation (4.5, within one standard deviation from the mean) and low on controlling motivation (1.2, one standard deviation below the mean). These motivation types are consistent with her interview as she appeared highly intrinsically motivated with great passion toward her courses: “[it’s] just incredible, like learning all this new stuff, I love it”, “it’s so interesting ... I love it, you get to do [course readings]”, “[I’m] so happy and

wanting to participate in anything” while simultaneously portraying moderate autonomous motivation as she believes “getting a degree furthers you in this world”. She also experienced low controlling motivation as she indicated lack of social pressure and a belief that her “parents are very supportive” and would be “very understanding” if she failed a course.

I1 also demonstrated a high propensity toward the setting of mastery goals (“[my goal is] to further my knowledge”, “I really want to learn all this stuff”, “so I understand it completely”) with only a moderate desire to obtain performance goals (“I’m not concerned about other people’s grades”, “usually I compare [a grade] to my average”, “I should be better than [students who] slack a lot”). She also appeared to experience high autonomy satisfaction (“I can do whatever I want”, “I just feel so comfortable and I want to be here”) with only moderate competence satisfaction (“I don’t always accomplish anything - or everything”). Finally, she appeared to experience high wellbeing (“I feel very satisfied with the school”; “I could like take on an army”), moderate dedication (“if I dropped out, I wouldn’t feel like I accomplished what I came here for”), and low achievement (“if you can get higher than a 50%, that’s amazing”).

Of all constructs coded, only mastery goals were described by I1 as having an impact on her intrinsic motivation: having a strong desire to pursue mastery goals (“learn new things”, “bringing it all in and processing it all”, “gaining a deeper connection to what one is learning”) was believed to promote high intrinsic motivation as she enjoys and is interested in learning the material. This relationship was not reciprocal, however, as I1 strives to obtain mastery goals even if she is not interested in the course. Nevertheless, the resulting increase in intrinsic motivation did have a direct positive effect on: performance goals, the belief that she had greater interest in her courses than other classmates made her believe that she should perform better than them in

these courses; autonomy satisfaction, enjoyment of courses is perceived to be related to her sensation of freedom and comfort while at university; competence satisfaction, enjoyment in the course leads to greater engagement which allows her to feel more confident with the material; well-being, enjoyment of courses and engaging with courses out of interest improves her mood and makes her feel as though she “could take on an army”; and dedication, love for university is related to high dedication to complete degree even if this takes a long time.

In addition to increasing her intrinsic motivation, I1’s high propensity toward mastery goals also led to increased wellbeing, autonomy, and competence satisfaction. That is, I1 believes that possessing mastery goals (focusing on her “own personal knowledge”) as oppose to performance goals (“worrying about others”) makes it easier to be herself around campus (autonomy satisfaction) and that obtaining mastery goals enhances her positive emotions (well-being) and makes her feel capable of future success (competence satisfaction). This enhanced competence satisfaction is reciprocally related to a further desire to obtain mastery goals: “once I feel like I can do it... I [strive] to understand it”. According to I1, her absence of controlling motivation further allows her to set and obtain mastery goals as she believes that experiencing social pressure would shift her focus from learning the material to outperforming others (“if you’re concerned about social pressure, you want to ...[do] better than everyone”) and that being “worried about others” would hinder her desire to study (autonomous motivation) and ability to learn the information (mastery goals). Thus, her autonomous motivation to engage with her courses also allows her to obtain mastery goals and her low controlling motivation prevents her from focusing on performance goals.

Similarly, I1’s autonomous motivation is related to enhanced dedication, competence, and

autonomy satisfaction while her absence of controlling motivation and performance goals is related to enhanced autonomy satisfaction and well-being. That is, the believe that “getting a degree ... furthers you in this world” increases her dedication toward ultimately obtaining a degree and personally choosing to engage in courses enhances her sense of competency because she considers doing well in university courses to be important to her future. Personally choosing to engage in courses also enhances her sense of autonomy and freedom on campus as she becomes more experienced with the facility which in turn further increases her autonomous motivation: “if I didn’t feel free and comfortable here, I wouldn’t be motivated to be here”. Absence of controlling motivation and performance goals further promote her sense of autonomy as not feeling socially pressured or compared to others makes it “easier to be around out there” and allows her to engage with her academic activities as she chooses.

This lack of social pressure and unconcern for the grades of others also leads to positive emotions and enhanced well-being which reciprocally leads to a further decrease in controlling motivation and performance goals as she feels her positive attitude protects her from the broad societal pressures to do better than others: “if I was not so positive, I’d definitely be more worried about other people’s grades”. Although obtainment of performance goals increases well-being (“feels good”; “makes me a happier person”), not obtaining performance goals decreases well-being as she feels disappointed and negative as a result of poor grades; therefore, I1 chooses not to set performance goals in an attempt to maintain positive well-being. This may also be the result of rarely obtaining performance goals in the past and poor past academic achievement. Indeed, I1 indicated that low academic achievement causes her to avoid setting performance goals. Nevertheless, I1 maintains that possessing high PWB (“a positive attitude”) increases her

ability to obtain performance goals.

Finally, in addition to its reciprocal relationship with mastery goals, I1's moderate competence satisfaction also had reciprocal positive relationships with performance goals, achievement, and well-being. That is, confidence within a course and the expectation to do well helps I1 to obtain performance goals and to earn high achievement while a lack of competence satisfaction is believed to be related to non-obtainment of performance goals and low achievement. Reciprocally, obtaining a performance goal or "getting a really high grade" causes increased competence satisfaction for the duration of the course: "I bet I can do really good on the next part". Furthermore, when I1 feels competent in a course, her well-being is increased ("it feels good") and when she experiences high well-being (having a "positive attitude"), she feels more accomplished and confident in her courses.

In summary, it appears as though I1's true interest in and enjoyment of learning coupled with her belief that a university education is important and lack of social pressure to attend courses allows her to experience strong autonomy satisfaction, well-being, and dedication while at university. This motivational conglomerate also motivates I1 to focus on her own personal understanding of the material and subjective accomplishments rather than the desire to outperform others and earn objectively high grades. Low academic achievement and the resulting hinderance in competence satisfaction also prevents I1 from adopting performance goals as she fears not obtaining performance goals will be detrimental to her well-being. However, setting and obtaining mastery goals promotes I1's autonomy, competence, and intrinsic motivation which directly and indirectly lead to increased well-being. All construct relationships described by I1 are visually depicted in Figure 5-3.

Interviewee I1		
- 18 year old female; Psychology major		
	Survey Score	Indicated by Interview
+ Intrinsic Motivation	High	High
- Autonomous Motivation	High	Moderate
+ Controlling Motivation	Low	Low
+ Mastery- Approach Goals	High	High
+ Performance- Approach Goals	Moderate	Moderate
- Autonomy	Moderate	High
- Competence	High	Moderate
- Academic Achievement	Moderate	Low
- Academic Dedication	High	Moderate
+ Well-Being	High	High
+ Indicates consistency		
- Indicates inconsistency		
-- Indicates major inconsistency		

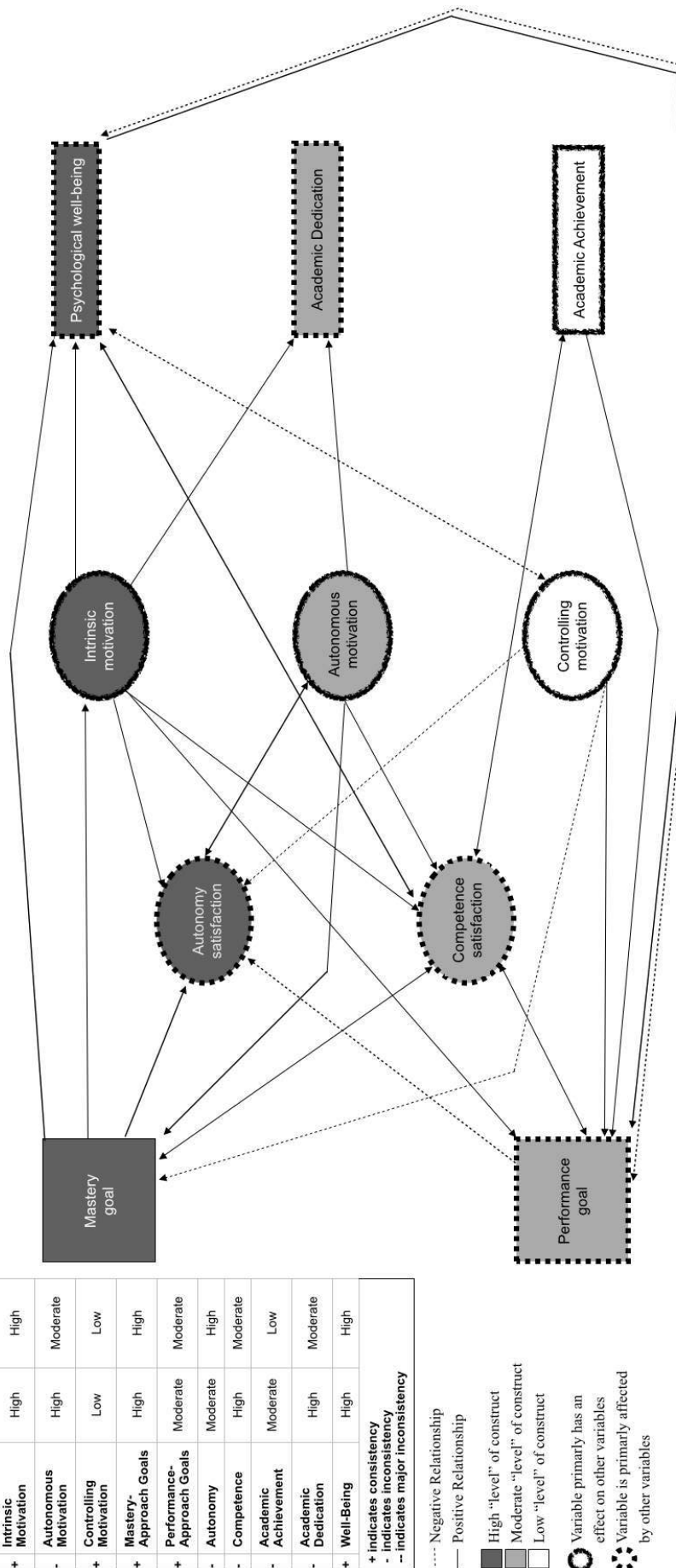


Figure 5-3. Graphic representation of relationships between constructs and levels of each construct as experienced by interviewee I1

Between-subjects Analysis

Between-subjects analysis was conducted using both componential (i.e. analysis of constructs) and structural (i.e. analysis of relationships between constructs) analyses.

Componential Analysis. The purpose of componential analysis was to develop a description of each construct that reflects students' actual experiences of them and to compare these descriptions with the operational definitions used in the survey. For each of the 10 constructs of interest to Study 2, the following was identified within each transcript: 1) keywords indicating the presence of the construct; 2) keywords indicating the absence of the construct; 3) factors that appear to directly foster the existence of the construct, including those not previously measured in this study; and, 4) factors that appear to directly hinder the existence of the construct, including those not previously measured in this study. Any additional comments or insights regarding the construct were also noted during analysis. Identified keywords, factors, and comments for each interview transcript are presented in the interview matrices (Appendix E).

Each interviewee was also classified as having a "high", "moderate", or "low" experience of each construct based on the researcher's impression of the overall transcript. These classifications were compared to survey scores such that scores of less than 2.5, 2.5-3.5, and greater than 3.5 were rated as low, moderate, and high, respectively (Table 5-4). Altogether, the majority of classifications (51%) were consistent between interview and survey ratings while only 2% had major inconsistencies (i.e. conflicting ratings of high and low) and 47% had minor inconsistencies (i.e. conflicting ratings of moderate and high or moderate and low). Among classifications for which there was consensus, the majority (61%; 31% of all classifications)

Table 5-4. Comparison of interview and survey classifications for each variable. Interview classifications were based on the researcher's interpretation of interview data and survey classifications were based on survey scores such that scores of less than 2.5 were low, scores of 2.5-3.5 were moderate, and scores greater than 3.5 were high.

	Intrinsic Motivation		Autonomous Motivation		Controlling Motivation		Autonomy Satisfaction		Competence Satisfaction		Mastery Goals		Performance Goals		Academic Achievement		Academic Dedication		Well-being	
	sur	int.	sur	int.	sur	int.	sur	int.	sur	int.	sur	int.	sur	int.	sur	int.	sur	int.	sur	int.
I1	H	H	H	M	L	L	M	H	H	M	H	H	M	M	M	L	H	M	H	H
I2	H	H	H	H	L	M	M	H	H	H	H	H	H	H	M	H	H	M	H	M
I3	H	H	H	M	L	M	H	H	H	M	H	M	H	H	H	M	H	H	M	M
I4	H	M	H	M	L	H	M	L	H	H	H	H	H	H	H	H	L	M	H	M
A1	L	L	H	M	M	M	M	M	M	M	H	M	M	H	M	M	H	H	H	M
A2	L	M	H	H	L	M	H	H	H	H	H	H	M	H	H	H	H	H	H	M
A3	M	H	H	H	L	M	H	H	H	H	H	H	M	M	M	M	H	H	M	M
A4	L	L	H	H	M	M	M	L	H	M	H	H	L	M	H	M	H	H	H	M
C1	L	L	H	L	H	H	H	M	M	M	M	L	L	M	L	L	H	M	M	L
C2	L	M	M	H	H	H	L	L	M	L	H	M	L	M	L	M	M	H	M	M
C3	H	M	H	M	H	M	H	M	H	M	H	H	H	H	M	M	H	H	M	M
C4	M	H	M	H	H	M	M	H	M	H	H	H	M	M	L	L	M	M	M	M
	+ 50%		+ 30.3%		+ 41.7%		+ 41.7%		+ 50%		+ 66.7%		+ 58.3%		+ 58.3%		+ 58.3%		+ 50%	
	- 50%		- 58.3%		- 50%		- 58.3%		- 50%		- 33.3%		- 41.7%		- 41.7%		- 41.7%		- 50%	
			-- 8.3%		-- 8.3%															

+ identifies consistent classifications
 - identifies minor inconsistencies
 -- identifies major inconsistencies

H = high experience of variable
 M = moderate experience of variable
 L = low experience of variable

were classified as “high” by both survey and interview data while 28% (14% of all cells) were classified as “moderate” by both survey and interview data and 11% (6% of all cells) were classified as “low”. The majority of non-consensus cells (59%) were the result of interview-based classifications underestimating one’s survey score, 47% of which occurred when interviewees scored high on the survey scale but were rated as moderate based on interview data. The only two constructs for which major inconsistencies were apparent were controlling and autonomous motivation. Data specific to each construct will now be discussed.

Self-Determination Theory Constructs. Participants’ understanding of the five SDT constructs (intrinsic, autonomous, and controlling motivation; satisfaction of needs for autonomy and competence) were extracted from interview transcripts. It is important to reiterate that transcripts were coded for the *satisfaction* of each psychological need rather than the expression of each need. While one’s need for autonomy and competence is theorized to be universal, the degree to which one feels these needs are satisfied is relative and subjective for each interviewee.

Intrinsic Motivation. Based on interview data, five interviewees were classified as highly intrinsically motivated (I1, I2, I3, A3, C4), four were classified as having moderate intrinsic motivation (I4, A2, C2, C3), and three were classified as low on intrinsic motivation (A1, A4, C1). The assessed level of intrinsic motivation was consistent with survey scores for half of interview participants with the remainder having only minor inconsistencies. Specifically, six interviewees were consistently classified as having high (I1, I2, I3) or low (A1, A4, C1) intrinsic motivation while the remaining six scored high on intrinsic motivation on the survey but were classified as moderate based on interview data (I4, C3), had moderate survey scores but were classified as high based on interview data (A3, C4), or scored low on the survey but were

classified as moderate based on interview data (A2, C2). Therefore, it appears the researcher's coding of intrinsic motivation is at least moderately consistent with the SRQ-A intrinsic motivation sub-scale. One potential cause for the observed discrepancies may be the tendency of interviewees to compare intrinsic motivation toward academic activities to intrinsic motivation toward other activities (e.g. sports, A4) which may lower their reported enjoyment of academic activities by holding it to a relatively high standard.

All interviewees discussed the presence of intrinsic motivation to some degree. The most common words used to describe intrinsic motivation were: "enjoyment" (11 interviewees: I1, I2, I3, I4, A2, A3, A4, C1, C2, C3, C4; e.g. "I genuinely enjoy it" A3, "that makes it enjoyable" C1), "interest" (10 interviewees: I2, I3, I4, A1, A2, A3, A4, C1, C3, C4; e.g. "my class is very interesting" I4), and "like" (7 interviewees: I1, I2, A2, A3, C1, C3, C4; e.g. "I like university" I2). This is not surprising given that "enjoy" and "interest" were both used within the interview question and "like" is a very common word within the English language. However, it is interesting that those classified as low on intrinsic motivation used only these three words to articulate their experience while those with high or moderate intrinsic motivation described a more emotional and pleasurable experience of intrinsic motivation.

For example, highly intrinsically motivated individuals repeatedly used the word "love" (I1, I4, A2) and "passion" (A2, A3) in relation to their academic activities (e.g. "I love learning" I1, "I absolutely love it here" I4, "[I] have emotion and drive and passion", A3) and described them as "fun" and "pleasurable" (I1, I3, A3, C4 e.g. "time flies when I'm doing it", I3, "reading is one of my favourite past times", I1). Other adjectives used by intrinsically motivated students to describe their academic activities were "fascinating" (I4, C4), "great" (I1, A3), and

“incredible” (I1). For these individuals, academic activities were also associated with emotions of happiness (I1, I2; e.g. “I’m so happy and wanting to participate in everything” I1, “it gives me happiness” I2) and excitement (“I get excited about school”, A2), and they described a “genuine enthusiasm for school” (A3).

All but three interviewees (I1, I2, C4) described their lack of intrinsic motivation using a combination of the same keywords used for intrinsic motivation: no interest (5 interviewees: I3, A2, C1, C2, C3; e.g. “I feel uninterested and negative toward it” C1, “some classes ... don’t draw much of an interest” I3), no enjoyment (A2, C1; “I don’t enjoy it”), not fun (I4, A1, A3; e.g. “it isn’t very fun” I4), or dislike (A2). When discussing their lack of intrinsic motivation, students used the terms “boring” (I3, I4, A1), “crappy” (A3), “tedious” (C1), or “means to an end” (I4, A4) to describe their courses. These courses “didn’t engage” students (I4, A4) and students “dreaded going” (A2) and felt as though they had to “suffer through it” (A3). Therefore, students’ experience of intrinsic motivation was associated not only with interest and enjoyment of one’s courses but also with strong emotions such as love or suffering.

Furthermore, it appears as though the intrinsic motivation of most participants (I2, I3, I4, A1, A4, C1, C2) is highly context dependent; that is, intrinsic motivation is: course-specific wherein an individual can be highly intrinsically motivated toward one course while simultaneously feeling low intrinsic motivation toward another; activity-specific wherein an individual can be highly intrinsically motivated to attend lectures within a course but not intrinsically motivated to complete the readings for the course; or, time-specific wherein an individual’s intrinsic motivation increases or decreases as they progress through university. Therefore, intrinsic motivation may be more fluid than often articulated by SDT and is likely to

be held alongside other motivation types simultaneously.

According to interview participants, the primary factors influencing intrinsic motivation are whether or not the academic activities are perceived to be directly related to one's long-term goals or career plan (7 interviewees: I2, I3, I4, A1, A2, A4, C2) and whether one feels that engaging in the activities will have immediate applications outside of class (5 interviewees: I2, I3, A1, A2, C3). For example, students experienced especially high intrinsic motivation in courses they felt "could take me somewhere" (A4), had content that "I can use ... for the rest of my life" (A2), or reflected "what I am in school for ... what I want to be" (I3). Similarly, courses with content that "never seems to come up in real life" (I3) or that will not lead to "a good job" (C1) hinder intrinsic motivation. This was especially apparent among C1 who does not enrol in courses she is intrinsically motivated in (e.g. Art) because she does not perceive positive job opportunities in this area. Among students especially high in intrinsic motivation, courses with novel content that was intellectually challenging and stimulated new ideas were especially motivating; variety of content with "things changing all the time" (I3) also increased intrinsic motivation for these students (6 interviewees: I1, I2, I3, I4, A3, C4). Similarly, courses with content that students were interested in and enjoyed prior to entering university were likely to further enhance intrinsic motivation (I3, A3, C3, C4). Getting to know other students who are different from one's self and enjoying the on-campus atmosphere also fostered intrinsic motivation among highly intrinsically motivated students (A3).

An additional factor affecting intrinsic motivation was quality of professor as students claimed to be more intrinsically motivated toward courses with professors who are "engaging" (I1, A1), "passionate" (A1), "interesting to listen to ... and funny" (C1). Quality

professors may be especially likely to increase intrinsic motivation among non-intrinsically motivated students as both C1 and A1 experienced low intrinsic motivation but stated that good professors help to foster intrinsic motivation toward courses they would not otherwise be interested in. Additional course factors that foster intrinsic motivation are: content that is subjectively relevant to society (i.e. health issues such as obesity; A2), classes that encourage discussion (A3), and upper-year courses with more specialized content as oppose to “vague” overview courses (I3, A3).

In addition to course-related factors, student specific factors also influenced intrinsic motivation. For example, being an active or auditory learner was identified as a factor promoting intrinsic motivation (I1) while feeling unprepared (i.e. not creating “the best habits in studying” C1) was identified as a factor hindering intrinsic motivation. Having the ability to choose one’s courses also promoted intrinsic well-being (C1, C3) while being forced to take certain courses and feeling pressured to attend university hindered intrinsic motivation (C1, C2, C3, I3). While all participants discussed factors that promote their intrinsic motivation, only half (I3, A2, A3, C1, C2, C3) mentioned factors that hinder it, suggesting that the presence of intrinsic motivation may be more salient for students than its absence.

Autonomous Motivation. Based on interview data, six interviewees were classified as highly autonomously motivated (I2, A2, A3, A4, C2, C4), five were classified as having moderate autonomous motivation (I1, I3, I4, A1, C3), and one were classified as low on autonomous motivation (C1). The assessed level of autonomous motivation was only consistent with survey scores for 4 interviewees (I2, A2, A3, A4) all of whom scored “high” on both the survey and interview. The majority of inconstancies were the result of interviewees’ survey

scores being higher than level of autonomous motivation based on interview data. That is, of the seven remaining interviewees who scored high on the survey, five (I1, I3, I4, A1, C3) were rated as moderate on the interview (minor inconsistencies) and one (C1) was rated as low (major inconsistency). Therefore, it appears this method of assessing autonomous motivation is consistent with the SRQ-A for individuals high in autonomous motivation but may underestimate autonomous motivation among intrinsically motivated individuals while being especially unreliable for those with high controlling motivation.

All interviewees discussed the presence of autonomous motivation to some degree. The most common word used in relation to autonomous motivation was “important” (9 interviewees: I2, I4, A2, A3, C1, C2, C3, C4; e.g. “it’s important for me” A2, “secondary education is important” I2) which is not surprising given that “important” was included within the interview question. The phrases “I want” (7 interviewees: I2, I4, A1, A2, A3, A5, C2, e.g. “it’s what I want to do” A2, “I want to .. because ...” A1) and “I need” (5 interviewees: A1, A3, A4, C1, C2; e.g. “I need to .. so that” A1, “I know I need to do this” A3) were also commonly used to reflect autonomous motivation. Other terms used to reflect one’s choosing to engage in academic activities after thorough consideration were “I figure” (I4), “got to think about” (C4) and “means to an end” (I4). For students high in autonomous motivation, the general term “motivation” was intended to refer specifically to autonomous motivation (e.g. “personal motivation” A2; “I’m motivated” I2; “motivation of myself” A4; “I need to motivate myself”; C1). Similarly, adding “self” to general motivation synonyms was used to reflect autonomous motivation: “self-motivated” (C4), “self-determining” (I4), “self-purpose” (C3), “self-regulation” (C4), “commit yourself” (I4), “self drive” (C4, A4), and “self-pressure”(C4, I2). Students often discussed self-

pressure (e.g. “pushing myself”, I2 and A2; “I force myself”, I4) suggesting that autonomous motivation may be somewhat conflated with controlling motivation. Specifically, it is unclear whether high self-regulation represents autonomous or controlling motivation given that these students consistently use terms “have to”, “need to”, or “should”, possibly reflecting internalized controlling motivation resulting from the value and importance one places on education. This conflation is discussed further shortly.

Only four students discussed an absence of autonomous motivation; the most common responses among unmotivated students were “I don’t know” (e.g. “I don’t really know why I’m here doing what I’m doing”, A1; “I don’t know if this is what I want to be doing”, C1, “I don’t really know why I’m here”, I4; “I just don’t know if I’ve found what I want to do”, C1) and confusion (“I’m confused and I get unmotivated” C1). Factors believed to hinder autonomous motivation were: the belief that one’s current courses “don’t matter” (A3, C1) because they can not be applied in “everyday life” or are not specific to one’s future profession; the belief that university education is not “the best” or only method of achieving one’s life goals (C3, I4); and, the absence of clear future life goals: “I wish I could just see like a clearer path and ... know what I’m going to end up doing [then I’d] be like ‘okay, this is worth it .. just push through it’” (C1).

Contrarily, having specific life or career goals and the belief that university education is vital to the obtainment of these goals appeared to be the primary contributor of autonomous motivation to attend university for all students (e.g. “I can’t get where I want in my future without it” A1; “there’s nothing in this world that I want to do that I could do without education”, A3). Desire to obtain future employment in a competitive job market was the most common

goal given by students (I2, I3, I4, A2, A3, C3, C4) whether it be a specific career requiring admittance to a professional college or employment in general: “if you don’t have education, no one’s going to hire you” (A3). This factor appeared to have an especially strong influence on the autonomous motivation of students who had a desire for a prestigious job attainable only with a university degree (I2, A2, A3, I3). For other students (C1, C2, A1, A4), simply obtaining a degree was the ultimate goal that inspires their autonomous motivation: “the degree is really what I want so I started working more” (C2).

In addition to specific career goals, the general belief that a university education is “useful” (I3, A2, A4, C3, C4), “beneficial” (I2, I3, A4), “valuable” (C3), or provides opportunities later in life (I1, I3, A3) promoted autonomous motivation: “it’s hard to get the motivation to study, but I just concentrate on the benefits of what it’ll bring me in the future” (I2). Similarly, students are also more autonomously motivated to attend courses perceived to be applicable to the “real world” (C3, A2,) with content that will “be used in the future” (I3). Autonomous motivation to attend is also higher among students who recognize the benefit of knowing and understanding course content and believe that regular attendance and engagement in courses enhances their understanding and aids in learning (I1, I3, I4, A1, A2, A4, C2). The desire to obtain high grades and the belief that engaging in academic activities is necessary to improve or maintain grades especially fostered autonomous motivation (I2, I3, A1, A2, A3, C1, C4). Other factors contributing to autonomous motivation in students were: acknowledging sacrifices (e.g. time, money) made to attend and the resulting belief that it is “important to do it right the first time” (I4); valuing the gain of “personal experiences” (A3) and talking to others who are different from one’s self (A3, I3); and knowing other students who are

not autonomously motivated within their courses or who have not pursued secondary education and desiring to be different from these students (I2, I3, A3).

The autonomous motivation of some students was context-specific such that it varied by the course or program of enrolment; indeed, one student was highly autonomous in his engagement with courses but lacked autonomous motivation toward university in general (I4). However, for the majority of students (I2, I3, I4, A2, A3, C1, C2) there appeared to be “no other way” (I4) than to be autonomously motivated; for example, one student believed “being lazy now” or allowing one to become un-autonomously motivated would lead to great difficulty in becoming autonomously motivated once “it comes to the important part of my university” (I2) while others identified as “a school person” (C2) who “can’t conceive of not going [to university] (A3). Similarly, A2 experienced very high autonomous motivation toward her academic activities due to a strong desire to attend professional college but did not feel that her motivation would decrease after she had been accepted into the college of medicine. In general, autonomous motivation is fostered by a conglomerate of inter-related goals (e.g. good grades, admittance to professional college, prestigious job), all of which are ultimately expected to contribute to a “better life”.

Controlling Motivation. Based on interview data, three interviewees were classified as having high controlling motivation (I4, C1, C2), eight were classified as having moderate controlling motivation (I2, I3, A1, A2, A3, A4, C3, C4), and one was classified as low on controlling motivation (I1). The assessed level of controlling motivation was consistent with survey scores for 5 interviewees (42%). The majority of inconsistencies were the result of interviewees’ survey scores being lower than their level of controlling motivation based on

interview data. That is, of the five remaining interviewees who scored low on the survey, four (I2, I3, A2, A3) were rated as moderate on the interview (minor inconsistencies) and one (I4) was rated as high (major inconsistency). Thus, it appears the interview-based method of assessing controlling motivation is consistent with the SRQ-A in some cases but has a tendency of over-estimating the controlling motivation of most individuals. This inconsistency may be the result of a social desirability bias wherein individuals avoid admitting to social pressures when directly asked via a survey item but are willing to discuss their controlling motivation in the context of other motivational elements and when given the chance to provide examples and explanations. However, the interview method may not entirely overcome the social desirability bias as the majority of students were still classified as moderate in controlling motivation which intuitively appears unlikely, especially in the case of C3 and C4 who scored especially high on controlling motivation on the survey.

All interviewees demonstrated some degree of controlling motivation with “pressure” being the most commonly used word to reflect this (8 interviewees: I3, I4, A2, A4, C1, C2, C3, C4; e.g. “a lot of pressure all the time” I3; “pressured by family and people I know” A3; “pressure to show up” A4; “parental pressure to do well in classes”, C1); again, this is not surprising given that the word “pressure” was used in the interview question. The phrase “I have to” was also commonly used to reflect controlling motivation (6 interviewees: A1, A2, A3, C1, C2, C3; e.g. “I have to go to school ... have to pass” A3; “classes you have to take” A1; “it’s what I have to do” C1) as well as key words “pushed” (I2, I4, A2; e.g. “my parents have always kind of pushed it” A2), “expectations” (I3, A2, C2; e.g. “I always have to live up to his expectations” C2), guilt (I4, C1, C2; e.g. “I feel guilty” I4), “should” (I1, C3, C4; e.g. “I should

probably go” C4), “need” (A2, C1, C3; “I need to get good grades” A2; “I need a degree C3), and “disappointed” (“if I were to say that I’m not [attending university] they’d be disappointed and shocked” A1).

To refer to an absence of controlling motivation, the same words were used with appropriate qualifiers: “pressure” (I1, I2, I3, A2, C3; e.g. “I don’t have any pressure at all” I1; “I don’t take classes based on feeling pressured to take them” A2), “push” (I2, A1, A2; e.g. “I was never pushed” I2), and “expectations” (e.g. “I’m not going to go be a teacher like everyone expected me to be” A3). The word “force” (C3, C4 e.g. “my parents didn’t force me” C4) and phrases “I’m not afraid to stand up to my parents” (A2) and “my friends don’t rub off on me” (I3) also reflected an absence of controlling motivation. A continuum of motivation is evident among these terms as one may feel “pressured” by social influences without necessarily being “forced”; that is, one may have experienced parental pressure to attend university but ultimately chose to attend while others attend solely as a result of this external pressure.

Familial pressure in general and parental pressure more specifically were primary factors influencing controlling motivation for all students; specifically, students who believed their parents would be supportive and understanding if they did poorly in school or chose not to attend (I1, I3, A3, C4) experienced less controlling motivation than students who believed it was important to their parents that they attend and do well (I2, C2, C3) or that their parents would not be supportive if they chose not to attend (C1). Similarly, students who felt pressured by their parents to initially enrol in university (A2, A4; “my parents said ‘you should go into medicine’” A2) experienced more controlling motivation than those whose parents did not force them to attend (A1, A3, C4; e.g. “my parents never said I have to go” A1). Family members who have a

university education or who highly value university education may be especially likely to exert pressure on students (I4, A3) but no longer living in one's hometown appears to deflect this pressure (C1). Strong familial pressure is related to: guilt and self-blame if one does not attend courses (A3), the fear of letting one's parents down (C1, C3), and the strong desire to make one's family proud (C3), all of which are theoretical components of controlling motivation.

Controlling motivation resulting from parental pressure may be further enhanced when one's parents are paying their tuition (C1, C3). Indeed, guilt and anxiety regarding the cost of tuition was a second factor that enhanced controlling motivation for the majority of students (I3, I4, A1, A2, A3, C1, C3); this occurred whether one's tuition was paid by his or her parents (e.g. "[I feel pressure from] my family, since they're paying for some of my school ... I don't want to let them down", C3) or by him or herself: "when you're paying as much as students do for tuition ... I feel like it's a waste of money and time if you come here and you're not trying" (I3). Similarly, acknowledgement of the time sacrificed to complete university also contributed to controlling motivation (I3, C1).

Although parents appeared to have the largest effect, one's controlling motivation is also influenced by others in his or her life such as their partner, roommate, friends, idols, or other community members. Not experiencing pressure from these individuals coupled with the belief that they are supportive and positive (I1, I2, I3, A2) reduces one's controlling motivation while believing that others expect one to attend and do well is related to increased controlling motivation (A2, A3, I3; e.g. "people are concerned about me doing well in life" I3). Previous academic achievement may mediate this effect as it appears students who have consistently obtained high marks in the past perceive especially high expectations from others (A2, I3, C4).

Having close friends within one's courses also increases controlling motivation if one believes these friends will think negatively of them for not attending or completing homework (A4, C1, C2); however, having friends who attend university may simultaneously reduce the perceived pressure to enrol among students who choose to attend because their friends are doing so (I3, A3). Having friends who do not attend university is also related to decreased controlling motivation as it allows students to become aware of and willing to consider alternative educational options (A1, A2).

Indeed, perceiving that one has many options and is not bound to any specific career (I1, I3, C2, A2) or that university education is not crucial to attaining future financial success (e.g. "I could make a living doing something different" I4) is related to reduced controlling motivation while the belief that obtaining a degree and high marks is the only way one will be hired or obtain their chosen profession (A3, C1, C3) facilitates greater controlling motivation. Similarly, the ability to choose one's courses, field of study, and method of engaging in courses (I2, I4, I3, C1, A2; e.g. "I'm making my own decisions ... I'm controlling the outcome") is related to less controlling motivation than having no choice in one's courses or program of enrolment (A2, C1). Therefore, having the opportunity to thoroughly explore educational options and forming relationships with people in a wide variety of vocational settings may prevent controlling motivation toward university.

Finally, controlling motivation need not be the result of direct pressure from specific individuals; rather, most students reported that general societal pressures and "social stigma" (C4) also contribute to their controlling motivation (I2, A1, C4; e.g. "I think people think lower of people who do not pursue secondary education" I2). This is related to the belief that

education is the morally “right thing to do” (I4) and being “taught that you are suppose to” (C4) pursue higher learning. This belief was endorsed by students despite acknowledging that “negative prejudice” toward people who do not pursue secondary education is morally wrong; thus, it appears students consider this social hierarchy to be a universal belief despite being “politically incorrect” to admit (I2). However, individuals who personally adopt these societal (or parental) values in education and attendance experience reduced external pressures as a result (I1, I2, I3, A2, A3, C3), suggesting that embracing the same values as one’s parents or community shifts one’s perception from “being pressured by others” to experiencing “pressure from self” which causes a corresponding shift from controlling to autonomous motivation. This is best reflected by I2 who experienced low controlling but high autonomous motivation: “it’s always been more of me pushing myself than anybody else pushing me ... I never really needed any push ... not that [my parents] haven’t cared about my grades, but it kind of comes so much from me and it’s so much on myself to pressure myself to do well that they just have never really commented ... I think I’m the only one in the world who puts pressure on myself, my parents don’t pressure me and my boyfriend doesn’t pressure me, my friends don’t pressure me”.

Similarly, some students reported events that may be interpreted as controlling motivation but did not appear to perceived them as such. For example, A3 recalled a conversation with his mother wherein she told him to change his career goal from art to filmography. He was originally upset and resisted changing his long held goal but soon realized a passion for filmography and expressed sincere gratitude that his mother was able to “know me well enough” and provide options of which he was previously unaware. Another student (I1) described her interactions with other students who had a strong desire to do well and regularly met to complete

coursework. I1 admitted that this could be perceived as “peer pressure” but stated instead that she enjoyed “being around people who are in my mindset”. Thus it appears external pressures need not always be interpreted as controlling motivation, especially when actively sought.

Additional factors contributing to enhanced controlling motivation are the perceived need to obtain high grades in order to be admitted to a professional college (A2, I3) and professors who offer rewards for attendance or participation (C1, A4). These factors highlight the context specificity of controlling motivation (A1, C1, C2) as it may vary considerably by program (e.g. one may feel pressured to enrol in their current program but expect to be intrinsically motivated toward a future program), course (e.g. one may feel forced to take required courses but intrinsically motivated toward others), or activity (e.g. one may feel forced to complete course work but choose to attend lectures for enjoyment). Similarly, one may have autonomously chosen to attend university in general but experience controlling motivation toward specific academic courses (A1, C1). However, the distinction between controlling motivation as a pure result of external forces and controlling motivation as a result of extreme internalized self-pressure must be repeated as it appears students who experienced considerable self-pressure report previous controlling motivation in elementary or high school as a contributing factor to controlling motivation in university (I2, A2, C1) suggesting that self-regulated controlling motivation is at least somewhat stable while external controlling motivation appears to be context specific.

Satisfaction of Need for Autonomy. Based on interview data, six interviewees were classified as having high autonomy satisfaction (I1, I2, I3, A2, A3, C4), three were classified as having moderate autonomy satisfaction (A1, C1, C3), and three were classified as low on

autonomy satisfaction (I4, A4, C2). The assessed level of autonomy satisfaction was consistent with survey scores for 5 interviewees (42%) with the remaining 7 having only minor inconsistencies. Specifically, three interviewees were consistently classified as having high autonomy satisfaction (I3, A2, A3) and one was consistently classified as having moderate (A1) and low (C2) autonomy satisfaction while the remaining scored high on autonomous satisfaction on the survey but were classified as moderate based on interview data (C3, C1) or had moderate survey scores but were classified as high (I1, I2, C4) or low (I4, A4) based on interview data. Thus, it appears the autonomy subscale of the BNS may overestimate participants' autonomy satisfaction compared to interview data.

Similar to other construct, the words used in the interview question were repeated by interviewees to reflect the presence or absence of autonomy satisfaction. Specifically, the words most used to reflect autonomy satisfaction were: “choice”/“choose” (I2, I3, I4, A1, A2, A3, C1, C3, e.g. “I just choose what I want to do” I4; “that isn’t all my own choice choice” I2) and “freedom”/“free” (I2, I3, A1, A2, A3, C1, C3, C4; e.g. “I don’t really feel very free” I4; “I have the freedom to choose” A1). Similar to controlling motivation, the term “pressure” was used to reflect the presence (e.g. “I don’t feel like I’m pressured” I3) and absence (e.g. “if I were in something different that I didn’t feel pressured to be into” C1) of autonomy satisfaction (I3, A2, C1, C4). Other terms used to reflect autonomy satisfaction included: “I want” (I1, I2, I4, A2, C1, C4; e.g. “I want to be here” (I1); “because I want to do it, not because other people want me to” A2), “decide”/decision (I4, A2, C1, C4 e.g. “I’m the one who does decide exactly what I want to do” I4; “I’m making my own decisions” A2), “options” (I3, A3; e.g. “there was no options” A2), “pick” (I3, C3; e.g. “lots to pick from” I3), “opportunity” (A4), “independence” (A3), and

“bound” (e.g. “I didn’t feel bound” C4). The word “comfortable” was used to reflect autonomy satisfaction to be one’s self at university (I1, I3; e.g. “I feel really comfortable around this university”) while phrases “I feel I’m not in that little box” (C2) and “I’m not exactly my normal self when I’m in class” (A4) reflect low autonomy satisfaction to be one’s self. The two interviewees lowest in autonomy satisfaction (A4, C2) had no codings to reflect the presence of this construct while the two interviewees highest (I1, C4) in autonomy satisfaction had no codings to reflect the absence of this construct.

As indicated, there were three main contexts in which autonomy satisfaction was discussed: 1. autonomy to choose how to engage with courses (e.g. “it’s my choice if I want to go to the library” C1); 2. autonomy to choose whether to be enrolled in university (e.g. “I want to be here” I1); and, 3. autonomy to be yourself at university (e.g. “freedom to be myself” A1). Most interviewees discussed multiple contexts and, like other constructs, autonomy satisfaction proved to be context specific. For example, students could experience high autonomy when engaging in courses while simultaneously feeling expressing low autonomy in the decision to enrol in university (I4, C1) or to be one’s self at university (A4). These contexts were eluded to in the question stem (e.g. “... feel free to make your own choices and be yourself ...”) but were consistently differentiated between interviewees in their discussion of autonomy satisfaction. The degree to which one feels their autonomy is satisfied was also subjective for each interviewee; for example, students may recognize the availability of many options without feeling free to autonomously choose among options (C3)

Factors affecting autonomy satisfaction were both personal (e.g. “it’s more of a personal thing for me” I1) and institutional (e.g. “the university gives you a lot of choices” I3). Having

course electives within one's program was the most frequently cited institutional factor enhancing autonomy satisfaction (I1, I3, I4, A3, C1, C3; e.g. "courses I pick" I3) as students felt free to choose among a variety of courses while "required" or "prerequisite" courses hindered autonomy satisfaction (A1, A2, C3; e.g. "there are a lot of classes you have to take" A1). Other institutional factors enhancing autonomy satisfaction included: unregulated attendance and engagement as compared to high school (A1, A3, C1, C4 e.g. "no one's chasing after you being like 'get to class'"), courses offered in multiple time slots and with different professors (C3, I4; e.g. "I had the opportunity, I could have changed teachers" I4), and large class sizes (A1, A3, C3). Autonomy satisfaction was also enhanced by supportive professors who do not treat minority students (e.g. transgender) differently ("no weirdness" A3) and by campus resources such as student disability services and the pride centre: "they have resources for students who are a minority ... whether that be race, sexual identity orientation" (A3).

Large class sizes, along with the large student population in general, enhanced students' autonomy to be themselves by: allowing students to meet others who are similar to one's self: "I've never met another person like me [transgender] in my entire life until university ... the people that I've met, I choose to surround myself with positive people who understand" (A3); increasing exposure to others with high autonomy satisfaction:

"when you're in high-school, it's very small, I was in a graduating class with about 45 people ... my lectures are like three times that size ... so when you're in high-school there's a lot of ... conform and do what you're told ... In University it's like you're adults. Come to class, don't come to class. Do the work, don't do the work. It's never like, don't be who you are ... I have people in my classes and they come to school with

pink hair and craziness and you can tell that they are obviously being who they want to be and no one's telling them, don't be this person" (A1);

and increasing the perception that one is merely one student among many: "you're one in millions ... it's much more individualistic [than high school]. Nobody's pushing you, nobody's forcing you to do anything and it's all self motivation ... you really have to - need to learn how to self motivate yourself, how to manage yourself individually ... you can't really rely on anybody" (C3).

As reflected in this quote, autonomy was not always perceived positively by students as some appeared to consider the ability to make choices for themselves burdensome: "I have to make that choice" (C1); "if you want to go into a study group ... you have to make sure you get into that, it's all self initiated" (C4). Also reflected in these quotes, students tended to compare their current autonomy satisfaction to the satisfaction experienced in previous institutions which influenced their perception of autonomy within university. For example, C2 demonstrated the lowest current autonomy satisfaction but reported feeling considerably more autonomous in trade school while students who were only able to use high school as a comparator (A1, A3, C1, C4) perceived considerably higher autonomy satisfaction in university. Therefore, past experiences are a personal factor influencing one's autonomy satisfaction. However, it also appeared as though the autonomy satisfaction of some students was a stable aspect of their personality such that they felt confident to be their-self in all environments (I1, I2) or had a strong personal desire to make autonomous choices in all areas of their life (I4, A1, A2).

Other personal factors affecting autonomy satisfaction include extracurricular activities, living arrangements, and personal beliefs. Specifically, students involved in extracurricular

activities such as sports or volunteering experienced less autonomy satisfaction due to the inherent “time constraints” (I3, I4) that engaging in these activities create. Regarding living arrangements, living “on your own” (C3), living on campus (I3), moving to the city from a small town (A2), and being far from one’s parents (C1) all contributed to autonomous motivation by reducing the perceived pressure from one’s parents or community (e.g. “my parents aren’t here to tell me to go to class” (C1) and increasing one’s comfort on campus, sense of independence, and perceived options (e.g. “somebody’s always doing something” A2). The perception that one is unlike others in their program hindered autonomy satisfaction (e.g. “it’s hard to be free because I took a year off to do mechanics and I found that in that trade I could be myself more than in business... I’m just such an outgoing - not sit around and do paperwork - kind of person and everybody in business is sit down and get it done - and I just feel I’m not in that little box” C2) while the belief that one’s decisions are not being judged by others (I1) and that one does not need to abide by the advise of others (A2) enhanced autonomy satisfaction.

Finally, the personally ability to reframe situations that “technically isn’t all my own choice” into autonomous decisions also enhanced autonomy satisfaction. For example, A2 feels forced to take required courses but rationalizes that “everybody in my degree” must take them which prevents her from feeling personally pressured and revives her sense of autonomy. Similarly, I2 has a long commute to university which is beyond her control but chooses to study on the commute which revives her sense of autonomy satisfaction: “I teach myself to be happy with it” (I2). Therefore, it appears autonomy satisfaction is not only influenced by outside factors but also by internal factors that may be taught and strengthened to eventually become a stable aspect of students’ personality.

Satisfaction of need for Competence. Based on interview data, five interviewees were classified as having high competence satisfaction (I2, I4, A2, A3, C4), six were classified as having moderate competence satisfaction (I1, I3, A1, A4, C1, C3), and one was classified as low on competence satisfaction (C2). The assessed level of competence satisfaction was consistent with survey scores for half of interview participants with the remainder having only minor inconsistencies. Specifically, six interviewees were consistently classified as having high (I2, I4, A2, A3) or moderate (A1, C1) competence satisfaction while four scored high on the survey but were assessed as having only moderate competence satisfaction based on interview data (I1, I3, A4, A3) and two scored within the moderate range on the survey but were assessed as high (C4) or low (C2) in competence satisfaction based on interview data.

Thus, it appears the BPNS is consistent with this method of assessing competence satisfaction in some cases but may overestimate competence satisfaction for some individuals. This overestimation of survey scores compared to interview data may be an artefact of the social desirability bias wherein students do not feel comfortable “bragging” (I2) about high competence satisfaction during an interview. Indeed, two students classified as highly competent stated “I don’t want to sound cocky” (A2 and C4) when discussing their competence indicating a hesitancy to stress their true feelings of high competence; three others (I2, I4, A4) expressed a similar hesitancy. In addition, survey and interview inconsistencies could result from competence satisfaction being highly relative for each student; for example, some are satisfied by being able to pass the course despite performing below the class average (C1, I1, C2) while others feel competent only when they fully understand the course content despite the ability to outperform others with a subjectively limited understanding (I2, I4). Similarly, there appeared to

be a conflation between one's actual competence satisfaction and one's belief that their competence *could* be satisfied; for example, C1 appeared to maintain moderate competence satisfaction by believing she could obtain higher grades if she had "higher self-esteem" despite poor previous performance: "it all depends on my mind set ... once I can set my mind to something ... I can accomplish much more" (C1). Believing that competence is only unsatisfied because one had low self-esteem or did not try may be less damaging to wellbeing than admitting one is incompetent in that subject.

As with other constructs, the words used in the question stem (competence (I2, I4, A2, A3, C1, C3) and capable (A2, C1, C4)) were often repeated by students to reflect competence satisfaction: "I think I'm competent" (I2); "I feel competent" (C3); "I know that I am capable" (A2), "I feel capable of doing well" (C1). Other terms used to reflect competence satisfaction were "excel" (I2, A4, C1; e.g. "I have areas where I excel"), "confidence" (I2, I3, A3, C2, C3, C4; "I feel really confident" I3; "I don't have the confidence" (C2)), "smart" (I3, A2, C3, C4; "I like to establish myself as someone who is smart" I3), "skills", (A3, A4; "I do have strong skills" A3), "abilities"/"able" (I2, A2, A4; e.g. "I have the ability to get a degree and do whatever I want as a career" A2), and "do" with appropriate qualifiers (e.g. "do well" A2, A4, C1, C2 C4; "do better" I2, A2, A4; "I can do this" A1, A3; "I do the best that I can already" I3; "I'm doing pretty good" A1; "I'm doing okay" A1; "I did great" C2; "I can't do anything" A1). Terms used only to reflect low competence include: "suck" (A1, A3, C2; "I really suck at writing essays" A3), "struggled" (I4, A1, A2; e.g. "I struggled through" I4), "not easy" (I4, A2, C4; "it doesn't come as easy to me" I3; "not an easy class" A2), "terrible" ("I'm terrible at Math A3), "tough" ("it can be tough at times" I3), trouble ("I have a lot of trouble with it" A2), and "given

up” (“I’ve just given up on myself in Math” C1).

Students primarily used academic achievement (I2, I4, A1, A2, C2) and outperforming others (I2, A2) as examples of their competence (e.g. “I am a lot better than others at it” I2; “I have the ability to get good grades” A2; “I got a 100 in some classes” I4) and lack of competence (“there’s always going to be someone who’s ... going to do better than me” C1; “I failed three times” C2). Understanding course content (I3, I4; e.g. “I got a good grasp of the concept” I4) and being told by others that one is competent (I2, A2, A3; e.g. “they’re like ‘I can see you have emotion and drive and passion’ ... so I always feel really confident and competent” (A3) were also provided as examples of competence satisfaction, albeit to a lesser degree. Other phrases used to express high competence satisfaction included: “I feel like I can take on whatever they throw at me” (I1), “I don’t think I’m limited in any way” (A2), “this is my forte” (A3), “this is my best strong suit” (C4), and “I have the tools needed to do well” (C4).

When discussing their competence, those high in competence satisfaction implied that their academic competence was the result of innate, overarching abilities that they had always possessed (I2, I3, I4, A1, A2, A3, C1, C4; e.g. “it just comes naturally to me ... it comes to me a lot easier than other kids” (I3); “I was a smart kid” (A1); “I’m very gifted academically” (A3); “I’m just innately capable” (C4)). This was especially the case for students who had been engaging in academic activities at an early age: “I’ve been reading since I was five ... the joke in my family has been I’ve been ready for university since grade 4” (A4). Contrarily, statements reflecting low competence satisfaction were very context specific (e.g. “I just don’t memorize words well” (I4); “I’m not good at sports” (A3); “I suck at math” (C2)), suggesting that students may preserve their sense of competence by attributing low demonstrations of competence to

specific subjects or activities rather than to one's overall abilities. Indeed, nine students stressed the context specificity of competence satisfaction, demonstrating that academic competence may vary by institution (high school vs. university vs. trades school; A1, C2, C4), program of enrolment (I2, C2, A3; "I would not go into a business course ... I don't understand money" I2), course (I3, A2, A3, "some classes are harder than others" I3), activities within a course (I4, A2, A3, C2, ; e.g. competent in remembering photos but not in memorizing words), and amount of time in university (C4): "I have areas where I excel and I know that I have areas where I don't as much" (C1).

Competence satisfaction was primarily fostered by previous academic success such as consistently obtaining subjectively high grades and outperforming others (I2, I3, I4, A1, A2, A3, A4, C1, C4). This past success allowed students to feel they had a "good background" (I3) with the content and enhanced confidence going forward. Similarly, low previous achievement such as failing courses was the primary factor mentioned that hindered competence (A2, A3, C1, C2). Low achievement appeared to be especially damaging when one expected to do well. Other identified factors that hinder competence satisfaction included: feeling as though one has given up on themselves or is "uncomfortable" in the course (C1, C2), feeling as though the course requires specific skills (e.g. memorization) that do not match one's learning style (A2, I4), or having a past teacher suggest that one may have a learning disability (A3). Among students especially high in competence, the mere belief that one had "worked hard" (I4) or "put my mind to it" (A2) was enough to instill competence satisfaction (I4, A2, A3). Other factors promoting competence satisfaction were having completed past years of university and knowing what to expect (C2), improving throughout one's university career (C2, A2, A3), professors who are

helpful and interact with students (I1), being able to visualize one's self in a respected profession (e.g. a doctor; I2), and satisfaction with one's medication for learning or mental disabilities (A3). Surprisingly, difficulty of course content was only mentioned by one student as a potential factor contributing to competence satisfaction suggesting that competence satisfaction is a broader, more complex construct than simply feeling able to perform well.

Summary of Componential Results for Self-Determination Theory Constructs. Most students were able to clearly articulate and differentiate three distinct forms of motivation in support of SDT. However, the terms most frequently used to address each motivation type and need satisfaction matched those used in the question stem developed to address each construct. Although students elaborated on constructs by providing examples and discussing their relevance to their own unique circumstances, students rarely expanded on the initial articulation of constructs given to them by the researcher. This may reflect a universal “completeness” inherent to SDT constructs as they are currently defined but more likely reflects students' complacency with the constructs as originally presented or an unwillingness to risk contradicting the researcher.

However, this was not always the case as those who appeared especially high on a given SDT construct tended to use their own words to express this elevated experience of the construct. For example, the words “enjoy” and “interest” were used in the question stem addressing intrinsic motivation and most students repeated these words when discussing this motivation type but those who were especially intrinsically motivated also used the words “love” or “passion” to express this. In addition, students typically used the same keywords to reflect the presence and absence of a construct by simply adding appropriate qualifiers. Finally, students tended to

discuss the presence of each SDT construct more often than its absence suggesting that each construct may be experienced to varying degrees by students but is rarely entirely absent.

The context specificity of SDT constructs was also evident in nearly all interviews. There was a primary distinction between *motivation to enrol in university* and *motivation to engage with courses*; the analogous distinction for needs satisfaction was whether needs were satisfied through enrolling in university and whether needs were satisfied by engaging in specific courses. For example, one may feel forced to attend university while simultaneously feeling free to choose how to engage in their courses. Students' experience of each SDT construct also appeared to be highly dependent on their institution or program of enrolment, the specific course they are engaging with, the specific activity they are engaging in, and the current stage of their university career. Interestingly, students high in autonomous motivation and/or competence satisfaction were an exception to this rule of context specificity as students high in autonomous motivation reported being autonomously motivated in all areas of their life while those high in competence satisfaction implied they had innate, overarching abilities that spanned all contexts. Contrarily, those low in autonomous motivation and/or competence satisfaction were quick to provide context-specific reasons for this and believed their competence and/or autonomous motivation would increase in the right context.

Therefore, motivation types and need satisfaction may be more fluid than often articulated by SDT and it is likely that all constructs exist simultaneously within any one individual. In addition, it appears the experience of each variable is relative to one's past experience, future expectations, and personal choices. For example, students may interpret situations as evidence of autonomous motivation or autonomy satisfaction while others may

interpret the same situation as controlling motivation. Similarly, an event that satisfies one students' need for competence or autonomy may be insufficient to lead to the same satisfaction in another student. Finally, constructs typically discussed positively by SDT theorists, such as autonomy satisfaction, were not always experienced positively by students. This further highlights the relativity of each construct and the unique experience of each individual captured only through in person interviews.

While the complete list of factors that facilitated or hindered SDT constructs varied for each construct, some factors were consistent across all constructs. Specifically, having a clear long-term goal or career plan and believing that one's current university program was the best way to obtain this goal were the primary factors affecting all SDT constructs. Similarly, the general belief that university education in general or specific courses are valuable throughout one's life or useful in the "real world" also affected all SDT constructs. Course-specific factors such as the quality of the instructor, content of the course, and opportunity for class discussion were also mentioned as factors that consistently affected multiple SDT constructs. Thus, although students support the distinction of five SDT constructs, these constructs may be influenced by the same core factors and affected similarly by specific contexts.

Achievement Goal Theory Constructs. Transcripts were also coded for mastery and performance goals set by students. In the interview question, the words "goals" and "strive" were used to refer to achievement goals while "aim" was also used in the survey. These words were repeated by interviewees (e.g. "I strive to..." (A1, A2, C1); "my goal is ..." (I2, I3, I4, A2)), but the phrases "I want to..." (I1, I3, I4, A1, A2, A3, C1, C3, C4) or "to" followed by an appropriate verb (e.g. "to remember" C3, "to know the answer" I1, "to do well" A3) were more common.

The terms “I try to” (I3, A2, C4), “I focus on” (I1, A2), “I shoot to ...” (C2), “I was hoping to ...” (I2), and “I’m concerned about” (I1) were all also used to reflect goal types. Although goal attainment was not an intended component of this study, having obtained a goal inherently reflects one’s setting of that goal and therefore goal attainment was coded similar to actual goals set and is included in the discussion of relationships between achievement goals and other constructs. There also appeared to be a conflation between mastery and performance goals as most interviewees did not fully distinguish between these goals in their interviews; this conceptual similarity will be discussed further shortly.

Mastery Goals. Based on interview data, eight interviewees were classified as having high propensity toward mastery goals (I1, I2, I4, A2, A3, A4, C3, C4), three were classified as having moderate propensity toward mastery goals (I3, A1, C2), and one was classified as low on propensity toward mastery goals (C1). The assessed level of mastery goals was consistent with survey scores for the majority (68%) of interviewees all of whom were assessed as having a high propensity toward setting mastery goals based on both survey and interview data (I1, I2, I4, A2, A3, A4, C3, C4). The remaining interviewees had only minor inconsistencies such that three (I3, A1, C2) scored high on the survey but were classified as moderate based on interview data and one (C1) scored moderate on the survey but was classified as low. Therefore, it appears the AGQ-R is generally consistent with this interview-based method of assessing mastery goals but may overestimate one’s desire to set mastery goals in some cases. This overestimation as well as the finding that the majority of individuals claimed to set mastery goals may result from a social desirability bias as mastery goals are often considered more socially desirable than performance goals.

All interviewees expressed some degree of mastery goals. As with other constructs, the most common words used to reflect mastery goals were those used in the interview question: “to learn” (used by all but A4; e.g. “I’m just here to learn” I1; “I want to learn as much as I can” I4) and “to understand” (I1, I2, I3, I4, A2, A4, C3; “to understand better” C3; “understanding and comprehending most of the content” A4; “I strive to learn the material and understand how to do it” A2). There appears to be three reasons influencing the goal “to learn”: 1. learning because one feels they “need to know” the material (I2, A1, C1, C4; “learn the stuff I need to know” A1; “I have to understand the material” I2); 2. learning because one has the desire to “want to know” the material (I1, I2, I4, A2, A3, C3; “I really want to learn all this stuff” I1); and, 3. learning because one feels they have made a financial or time sacrifice so “might as well learn” (A1, C2).

Those with high mastery goals expressed the desire to “learn all the material” (A1) and understand things “completely” (I1) to form a “deeper connection” (I1) while others were content to “learn the material [to] meet the course requirements” (C1) or learn “most” of the content (A4). Therefore, there appears to be varying degrees of mastery goals and the specific mastery goals set may be based on obtainment of past goals such as those formed in high school (I2) or improvement throughout university (A2). Other keywords used to reflect mastery goals included “knowledge” (I1, I4, A4, C4; e.g. “desire for knowledge” I4; “gain knowledge that I can use” A4) and “personal” (I1, A2, C3, C4; “I focus more on my own personal knowledge” I1, “my personal best” A2, “personal understanding” C3). Additional phrases used to by students to reflect mastery goals included: “soaking up new information” (I2), “figure it out” (I4, A4), “got a good grasp on the concept” (I4), “take in as much as I can” (A1), “absorb as much as I can” (A3), “comprehending” (A4), “get it in more depth” (C1), “attain all of the

information” (C3), and “know how things work” (C4).

Students high in mastery goals appeared to truly value education and had a desire for personal fulfillment or improvement attainable only through acquiring competence (I1, A2, A3, C3). They tended to juxtapose mastery goals with memorization (e.g. “it’s no use to just memorize” I4; “you’re going to benefit [more] if you understand how the information all ties together than if you just memorize it” I2) and emphasized the goal of remembering information long term (I2, I3, A2, C3). Students high in mastery goals also simultaneously held performance goals (e.g. marks; to be discussed shortly), but tended to base these performance goals on their own past performance rather than on the performance of others: “I compare [my score] to my average” (I1); “I was hoping to earn marks not less than 10% of those earned in high school” (I2). In general, these students were primarily focused on performing to their own optimal potential: “do the best that I can” (I3, I4, A1, C3, C4); “do as well as I possibly can” (A3); “know as much as I can” (I3).

Students were most likely to set mastery goals when they believed that the content would be otherwise relevant and applicable in one’s every day life “outside of class” (I2, I3, A1, A3, C3) or that obtainment of these goals would lead to concrete benefits such as allowing one to: better understand new, advanced content (I3, C3); obtain a higher mark or perform better in the course (I2, A1, A2, C1, C3); or obtain a competitive advantage in their future job (C4, C3, A1, A4). Similarly, students believed that fully learning and understanding the content would help one to remember it in the long term and would thus be more beneficial in the future than simply “memorizing” the content (I2, I3, A2, C3): “if I understand things it’s like always there” (I2). Propensity toward mastery goals was also fostered by a genuine interest in the course content (I1,

C4) and a true desire for new knowledge and understanding (I2, A2, A3).

Mastery goals were also fostered by the desire to be able to “explain it to somebody else” in one’s own words (I2, A2, I1), the belief that most other university students form the goal “to learn” (A1), respect for university as “an institution of learning” (I1), the desire to avoid lowered well-being resulting from not doing one’s personal best (A2), and previous attainment of mastery goals (A2). Students’ propensity toward mastery goals were hindered by the realization that one can do well on a test through rote memorization without understanding the content (I2), the belief that the course content will not be applicable to one’s future career or everyday life (C1), and disinterest in course content (C1).

Performance Goals. Based on interview data, six interviewees were classified as having high propensity toward performance goals (I2, I3, I4, A1, A2, C3) and six were classified as having moderate propensity toward performance goals (I1, A3, A4, C1, C2, C4). The assessed level of performance goals was consistent with survey scores for the majority (58%) of interviewees with the remainder having only minor inconsistencies. Specifically, seven interviewees were consistently classified as having high (I2, I3, I4, C3) or moderate (I1, A3, C4) propensity toward performance goals while the remaining five scored low on the performance goals subscale the AGQ-R but were classified as moderate based on interview data (A4, C1, C2) or scored moderate on the scale but were classified as high based on interview data (A1, A2). Therefore, it appears the AGQ-R is generally consistent with this interview-based method of assessing performance goals but may underestimate one’s desire to set performance goals in some cases. This underestimation may be even greater than immediately apparent as five interviewees (I1, I2, I3 A2, A4) were hesitant to admit to their desire to do better than others for

fear of being “rude” (I1) and expressed awareness that discussing performance goals went against social norms.

All students expressed performance goals to some degree. There appeared to be a distinction between four main types of performance goals wherein students desired to demonstrate their competence through: 1. subjectively high grade obtainment; 2. relatively high performance compared to other students; 3. passing the course; and, 4. ultimately obtaining a degree. All students expressed their performance goals in terms of obtaining subjectively high achievement whether that be a specific numerical value within a class (I1, I2, I4, A1, A4, C2 e.g. “higher than 50%” I1; “I strive to be high 70s”; “I just have a goal in mind of an 80 ... it’s kind of an arbitrary number but... it’s defined” A4), a positive class average (I1, A2, A3, C1; “to get a good average” A3; “I just want to be like average” C1), or a vague qualifier such as “good” or “high” (e.g. “good grades”/“good marks” I1, I3, A2, A3, A4; “high mark”/“high grade” I2, I4, C3, C4).

Eight students expressed their performance goals in terms of comparing their performance to others: “I mark how I did based on how other people did” (A2). This predominately included obtaining higher marks than classmates (I1, I3, I4, A1, A2, C3; e.g. “I would like to do better than them” A1; “there’s a reason that I’m better than them and that’s because I get better marks” I3) but also included performing similarly to peers (e.g. “I just want to be like average” C1; “keep up with your peers” C4) and not performing worse than peers (I2, A2). Some students (I1, A2) also compared their rate of engaging in courses (e.g. finishing assignments, doing readings, etc.) with others: “even if I just know that I’m doing all of my assignments and some people aren’t, that feels good for me” (I1) suggesting that students

compare process goals in addition to their grade goals. The term “do better” was most commonly used to reflect outperforming others (I1, I2, I3, A1, A2, C3, C4; e.g. “I should be better than [students who] slack a lot” I1; “to do better than the class average” A1, “do better than my peers” C4), followed by “top” (I3, I4; e.g. “being in the top 5% of the class” I4; “I want to be at the top of the class” I3) and “being the best” (I2, I4).

Those with only moderate performance goals (A3, A1, I1, C1,C2) specifically denied setting goals of outperforming others: “I’m not concerned about other people’s grades” (I1), “I never wanted to start going to University to be better than everyone” (A1), “being better than the rest is just not my goal” (A4), “I don’t take my schooling competitively” (C1), and “I could care less what other people do” (C2). However, while those lower in performance goals did not focus on outperforming others, they still aimed to demonstrate their competence by passing the course (I1, A1, C1, C4; e.g. “even passing feels good” I1; “stay above failing” C1) or ultimately obtaining a degree (A1, C2). Other demonstrations of competence used to reflect performance goals included being able to: answer course related questions when asked (I1, C1, C3), use the content outside of class (I3), provide an example or discuss the content using one’s own words (A2), teach the content to someone else (A2), “to succeed” (I1, A1, C3), or “to ace this” (A3)

It appears as though confidence, prior performance, desire for a prestigious profession, and a competitive personality are the primary factors affecting one’s propensity toward performance goals. Specifically, those with only moderate performance goals stated that they did not believe they could successfully outperform others and therefore refrained from setting unattainable goals (A3, C1, C4; e.g. “there’s always going to be someone who's going to try harder and do better than me” C1) while those high in performance goals had consistently

obtained performance goals in the past (I2, I3, A2; e.g. “I was always the best in high school” I2) and thus believed that they would naturally outperform others if they worked hard (I1, I2, I3; e.g. “not necessarily that I need to be better than everybody else, but I think ... working hard just kind of comes with it ... if I’m achieving good marks, I should be more or less top of the class” I3).

Thus propensity toward performance goals may be somewhat context-specific as students will be more likely to set performance goals when they are confident they will be able to obtain them which is especially the case in areas in which they have previously obtained high performance (A1, A3). The actual performance-goal one sets may also vary by context; A2 set initial goals prior to class but adjusts them as she gains experience with the course, material, and professor. However, for those accustomed to high academic achievement, obtainment of performance goals is perceived as a “given” and thus these students set performance goals in all courses, although the actual goal may vary: “I expect for myself to get better marks in certain [courses] than others” (I3). One student (I2), especially high in performance goals, believed that she would no longer focus on outperforming others once she was admitted to a professional college as she would no longer be in competition with others for admittance, further suggesting that propensity toward performance goals may be context specific.

Those high in performance goals also desired to attend a professional college or graduate program (I2, I3, A2) or to obtain a good job after graduation (C3) and knew that they must outperform others and obtain high grades to be accepted or hired; A3, who was only moderate in performance goals, also shared this sentiment but believed employers cared only about absolute grades and not whether one outperformed others: “if they’re hiring you, they’re not going to be

like ‘oh, you scored 3% less than [another student] - no one’s going to care’. Thus, A3 sought high grades but made no goals regarding outperforming others while I2, I3, A2, and C3 sought to both obtain high grades and outperform others. Each of these five students also identified as a “competitive person” in all areas of their life and believed this aspect of their personality was the primary reason they sought to obtain performance goals (e.g. “I’m really competitive with my personality and not just in school but with other things too ... it’s just the competition aspect more than anything” I2; “it’s just like the competitive aspect of myself ... I always like to do the best ... and try to do better than other people” C2).

Other identified factors that enhanced some students’ desire to set performance goals included enjoyment obtained from being able to “brag about my marks” coupled with a strong dislike for situations in which others are able to gloat (I2) and the desire to be broadly perceived (e.g. “everybody else kind of like knows”) as someone who is “smart in the college” and better than others (I3). It appears that even students with a low propensity toward performance goals (i.e. who do not strive to outperform others) still choose to look at the performance of others to gauge their personal success. That is, some students do not set performance goals a priori, but still judge their success based on the performance of others: “I also look at the class average just to ... see where I’m at in my education” (I1). Others do not compare themselves to other students at all (I4, A4, C2) but still focus on a demonstration of competence (e.g. do well on the test or obtain a certain mark) rather than the acquisition of competence (e.g. learn the material). However, as foreshadowed, the distinction between mastery and performance goals was not always clear in interview transcripts.

Conceptual Similarity Between Mastery and Performance Goals. All but one interviewee (C1) provided evidence for the conceptual similarity of mastery and performance goals. That is, although students recognized two distinct goal types, there appeared to be conflation when discussing their specific goals. For example, the goals “to do well/good” (I1, I2, I3, A1, A2, A3, C1, C4, e.g. “to do well on tests” C1; “want to do well in the classes” A1) or to do the best one can (I3, A3, C2, C4; “to do the best that I can do” I3; “get as good of a marks you can” C4) were given by nearly all interviewees but it is unclear whether these reflect pure mastery or performance goals; “do” clearly refers to the demonstration of competence (performance goal), but students compare this only to their own past performance or subjective understanding of the material which better reflects mastery goals. It is also unclear whether the goal “to get a degree” reflects mastery or performance as students did not indicate what obtaining a degree signifies to them. To some, a university degree may be a symbol of having acquired knowledge and higher learning while others may consider a degree to be a universal, constant demonstration of competence; A1, C2). Similarly, it is unclear whether goals such as “to attend” (C2, A2) reflect the desire to acquire competence (mastery) or to demonstrate competence (performance) as both are likely consequences of attendance.

In some cases, what is presented to be a performance goal may actually reflect an underlying desire to acquire competence. Indeed, all students identified a goal involving the demonstration of competence but many did not compare this demonstration to others (I2, I3, I3, C3, A1). For example, many set goals to obtain a certain mark (performance goal) but chose this mark to reflect what they consider to be an adequate understanding of the material (obtainment of mastery goal; I1, I3, A2, C2): “the mark ... it’s suppose to like be a representation of how well

you know your stuff” (A2). Similarly, while numeric goals were considered performance (e.g. “I kind of want to display [knowledge of topic] through my marks” I3), some students set them “just to see where I am personally ... just knowing is good for me ... [where I am] in comparison to other students” (I1). Other students compared themselves to others in terms of having obtained mastery goals; for example, I1 strives to understand assignments better than others and A1 aims to learn more than other students. In these cases, the focus appears to be on acquiring competence despite elements of performance goals.

However, more often what was presented as a mastery goal actually reflected an underlying desire to demonstrate competence. For example, some students set mastery goals for the sole purpose of obtaining performance goals in the future (A3, A1): “I must learn the material to pass the class” (A1). Indeed, in order to ultimately demonstrate one’s competence in an area, one must first acquire competence in this area. Similarly, students often defined obtainment of mastery goals in terms of performance goals (e.g. 80% average reflects comprehending the course content; I3, A4, A3), suggesting that their true focus may actually be on the demonstration of competence. Similarly, A1 repeats phrase “learn what I need to know” but does not discuss desire to thoroughly understand content, suggesting her goal is to learn material to the extent required to obtain degree (performance goal) rather than to enhance personal understanding (mastery goal). Similarly, the goals of being able to explain the content using one’s own words (A2, I1, I2), teach it to someone else (A2, I2), or remember it long term (I2, I3, A2, C3), were given as examples of mastery goals as these abilities require a full understanding of the material; yet, the act of teaching or reciting material in the future is in itself a demonstration of competence. Furthermore, despite not setting a priori performance goals of

being better than others, most students still compared their scores to the class average and are thus focused on the demonstration of competence rather than acquisition of competence (C1, A4, C4, I4). . Finally, some students claim to value mastery goals (e.g. learning) more than performance goals (e.g. marks), but in explaining why, state that mastery goals allow them to understand material *better than others* which reflects an underlying performance goal orientation (I4, I2) despite a concurrent focus on competence acquisition. This suggests that the inherent desire to demonstrate competence and compete with others is still present despite acknowledgement of the intrinsic value of acquiring knowledge for its own sake (I4).

It is important to remember that the presence of either mastery or performance goals does not negate the existence of the other goal type as the two may be adopted simultaneously. Indeed, many students described holding both mastery and performance goals simultaneously (I1, I2, A1, A3, C3, C4) but understood them as “definitely different” (I1) goals: “if I don’t do my personal best then I don’t feel good about it ... marks are important, but I think that’s also like equally important” (A2). For example, one may set performance goals for specific classes (e.g. do better than friends on a test) but maintain an overarching mastery goal at the university level (e.g. to learn; A1). Although both goals were conceptually related and existed in the same context, when forced to choose, students were able to give priority to one goal type over the other and justify this decision, suggesting that students do perceive two distinct, but related, goal types. Specifically, I1, I4, A3, A4, C4, gave priority to mastery goals (e.g. “what you actually know and can learn and can apply is a hundred times more important than what some piece of paper says” A3) while I2, I3, A1 A2, C1, C2 C3 gave priority to performance goals (e.g. “I think I focus more on the mark” A2; “that high of mark is the ultimate thing” I2).

As demonstrated in these quotes, many students described goal types by juxtaposing them with the other. This which often lead to a comparison of their effects. In general, obtainment of mastery goals was believed to have a larger positive effect on well-being and competence satisfaction than obtainment of performance goals (A2, A3, I4, I1): “[if] I don’t like do better than the rest of the class, it’s not as disappointing as if I don’t do what I think I can personally do” (A2). Furthermore, in the absence of performance goal obtainment, obtainment of mastery goals continues to relate to increased competence, autonomous motivation, and positive well-being (A3) suggesting that mastery goals may mediate the negative effects of not obtaining performance goals. Therefore, holding both goal types simultaneously may be an adaptive strategy learned by students. This constant possession of both goal types explains why a clear distinction of goal types is not always evidence within specific goals.

Outcome constructs. Outcome constructs were primarily included within the interviews to determine their relationship with motivational constructs; therefore, the following componential analysis is not intended to further theoretical knowledge of well-being, dedication, or achievement as was the intent for other constructs and thus the following discussion is less extensive.

Well-being. Based on interview data, one interviewee was classified as having high well-being (I1), one was classified as having low well-being (C1), and the remaining 10 were classified as having moderate well-being. The assessed level of well-being was consistent with survey scores for half of interview participants with the remainder having only minor inconsistencies. Specifically, five interviewees were consistently classified as having moderate (I3, A3, C2, C3, C4) and one was consistently classified as having high (I1) well-being while

five others scored high on well-being on the survey but were classified as moderate based on interview data (I2, I4, A1, A2, A4) and one had a moderate survey score but was classified as low based on interview data (C1). Therefore, it appears this interview-based method of assessing well-being is at least moderately consistent with the PWS, PANAS, and SWLS but may underestimate well-being in some cases.

In general, interviewees reflected both subjective (e.g. “happiness”/“happy” I2, I3, I4, C4; “satisfaction”/“satisfied” I1, I3, C1, C3; “excited” A2; “positive” A1, A3, C2; “nice” I3, A2) and psychological (e.g. “I feel like I could take on an army” I1; “this year has been incredibly liberating academically and personally” A3; “self-purpose”, C3; “fulfillment” A4) well-being. Other phrases reflecting moderate well-being included: “I just feel so comfortable” (I1), “not too overwhelming” (C1), “make the best of it” (A2), and “feel better about myself” (C3) while negative well-being was reflected by the terms “stress”/“stressful” (I3, A2, A3, C1, C2), “anxiety”/“anxious” (A3, C1), and “negative impact”/“negative feelings” (I4, C1). Colloquial phrases used to reflect poor wellbeing included: “I’d be bummed” (I2), “it does bug me” (I3), “driving me up the wall” (A1), “I feel like a scatter brain ... I’m confused when it comes to my education” (C1), and “a lot of ups and downs ... turbulent time” (C4). Emotions of “hate” (C2), “dread” (A2), “terror” (A3), “disappointment” (A2), “worry” (C4), “frustration” (A3), and “discouragement” (C4) also reflected negative well-being. Therefore, it appears students’ understanding of the construct “well-being” is similar to that measured by the PWBS, PANAS, and SWLS.

Aside from the AGT and SDT constructs (to be discussed shortly), factors identified by participants as having a positive impact on well-being included: involvement in sports or other

physical activities (A2, I4), possessing a “decent group of friends” who “take school seriously” and have “similar work environments” (A3, A1, A4, C2), not feeling judged by others (I1), and effective time management skills (C2). One student (A3) also discussed his recent diagnosis of attention and anxiety disorders and claimed his new medication had a profound positive impact on his well-being. He claimed that focusing on overarching life issues as oppose to everyday problems benefited his well-being. Similarly, possessing clear life goals and the belief that one will ultimately obtain these goals was related to enhanced wellbeing (I3, C2) while confusion regarding one’s career path was related to decreased well-being (C1).

Course related factors were also identified as having an impact on wellbeing. Specifically, having a “good class” in which one feels they “engaged really well”, learned valuable information, and were “confident” in (I1, I2, I3, C2) is related to positive well-being while attending a course in which one is not interested or confident causes anxiety and poor well-being (I4, A1, A2, A3, C1). Courses that involve major projects, are held at night, or in which students do not know their classmates may be especially damaging to one’s short term well-being (A3, C1). Believing one’s marks do not reflect one’s knowledge of the topic or that one could have performed better was also damaging to well-being, especially among students identifying as “competitive” (I2, I3, A3). Alternatively, some students (I1, C3) believe their positive well-being is a stable trait (e.g. “I’m just a positive person ... it is just because of my attitude and how I am”, I1) that is not strongly impacted by academic or life factors.

Academic Dedication. Based on interview data, seven interviewees were classified as having high dedication (I3, A1, A2, A3, A4, C2, C3) and five were classified as having moderate dedication (I1, I2, I4, C1, C4). The assessed level of dedication was consistent with survey

scores for the majority (58%) of interviewees with the remainder having only minor inconsistencies (Table 5-4). Some of these inconsistencies may be the result of the complex articulation and context specificity of dedication. Specifically, the distinction between one's dedication to ultimately obtain a degree and one's dedication to complete his or her current degree was not readily apparent in survey items but was stressed during interviews. For example, some students indicated a strong desire to obtain a degree from a professional college or alternate university without having to fully complete their current degree (I2, I4, A3, C4) while others were highly dedicated toward their current degree but were unsure of their long term dedication toward a Master's program (I3). Similarly, some students currently experienced high dedication despite previously dropping out of university (C2) or articulated a desire to drop out and travel before resuming courses and ultimately obtaining a degree later in life (I4); it is unclear how these students would have responded to survey items.

Furthermore, "academic dedication" was intended to refer to one's quality of dedication (e.g. strongly committed to completing degree vs. unsure whether they will re-enrol in university) as oppose to one's longevity of dedication (e.g. dedication to complete professional degree vs. dedication to complete undergraduate degree); however, these two aspects of dedication appear to be somewhat conflated such that those with long-term dedication tend to also have a high quality of dedication. Nonetheless, some students were classified as high on dedication despite having no desire to pursue education beyond an undergraduate degree while others were classified as low despite expressing a desire to pursue a mastery's program if they appeared hesitant to commit to this program.

As with previous constructs, the term used in the interview question (e.g. "drop out") was

repeatedly used to reflect both high (I1, I3, A1, A3, C1, C2, C3, C4; e.g. “I could never drop out of school” A3; “I don’t consider dropping out”) and low (e.g. I2, I4; “I will drop out” I4) dedication. Highly dedicated students had clear academic and career goals for their future (I2, I4, I4, A1, A2, A3, A4; e.g. “I’m trying to get into a Master’s program” I3; “I’m eventually going to film school” A3; “I see myself with a degree ... working in the business world” C2) and claimed they had never even conceived of dropping out (I3, A1, A3, C2, C3, C4; e.g. “dropping out ... hasn’t been an option ... I’m going to finish this, there’s no ifs ands or buts” C2; “it has never crossed my mind, ever ... there’s just no way that I’m going to not go back ... I’ve never thought of not going to school” I3). The desire to begin one’s career as soon as possible (A1), belief that a university degree is the only way to obtain this career (A3, C3), and a strong dislike for alternative careers (e.g. “I don’t want to work at a crappy part time job the rest of my life” A3) further increases students’ dedication to complete their degree.

Contrarily, students without a clear career plan (C1, C4, I3; “I don’t know if I’ve found what I want to do for the rest of my life” C1) or “struggling” (C4) with career decisions had the lowest dedication. These students remained in university to obtain future employment and for the personal value of “finishing what I have started” (C4) and “not completely giving up on it” (C1). This sentiment was also shared by those with higher dedication who believed that quitting university after having “tried so hard” would “have a negative effect on the rest of [one’s] life” (I2), “especially after three years” of work and dedication (I3). Dedication was also enhanced by the sheer desire for a “sense of accomplishment” from obtaining a degree: “getting a degree would be like amazing” (I1 quoted, also expressed by A1, A4, C2) as well as by knowledge of peers who have dropped out and not wanting the life of these peers (C2).

Furthermore, the belief that “completing university will happen naturally” (I2) inspired low dedication to complete one’s current degree but did not affect overall dedication as one expected to ultimately obtain a degree after travelling; contrarily, the desire “to not be in school forever” (A2) hindered long-term dedication to complete a professional (e.g. medicine) but enhanced current dedication to complete a nursing degree. Therefore, it appears academic dedication is as context specific and fluid as other constructs.

Academic Achievement. Based on interview data, three interviewees were classified as having high achievement (I2, I4, A2), six were classified as having moderate achievement (I3, A1, A3, A4, C2, C3), and three were classified as low on achievement (I1, C1, C4). The assessed level of achievement was consistent with survey scores for the majority (58%) of interviewees with the remainder having only minor inconsistencies. Specifically, seven interviewees were consistently classified as having high (I4, A2), moderate (A1, A3, C3) or (C4, C1) achievement while the remaining five scored high on achievement on the survey but were classified as moderate based on interview data (I3, A4), had a moderate survey score but was classified as high (I2) or low (I1) based on interview data, or scored low on the survey but were classified as moderate based on interview data (C2).

These discrepancies are likely due to the fact that the survey item measuring achievement asked one for their objective grade point average while interview-based classification accounted for students’ subjective interpretation of their grade which was relative to their past achievement and perception of what constitutes a “good” grade. That is, achievement was found to be highly relative between students such that some experienced objectively low achievement (e.g. averages of 50-60%) but referred to this as “decent”, “high”,

or “amazing” (I1, A1) while others obtained objectively high achievement (70-80%) but referred to this as “not that great” (A3). Furthermore, the most common terms used for achievement were “marks” (I1, I2, I3, A2, A3, C4), “grades” (I3, C1, C2, C4), and “class average” (I4, A1, A2, C1) coupled with qualifiers such as “high” (A1, A3, I3), “lower” (A1), “better”(I3, A2, C1, C3), or “good” (I3, A3, A4, C1, C4). This abstract language (as oppose to absolute numeric averages) coupled with students’ tendency to speak in hypothetical terms made assessing their true level of achievement difficult which maybe have further contributed to the inconsistencies between survey and interview classifications.

While some students did discuss achievement in terms of actual numeric values (I2, I4, A3, C2; e.g. “my marks were 95 or higher” I2; “I pulled off 80s and 90s” C2), others used references such as “Greystone scholar” (I2), “valedictorian” (C4), or “honour roll” (C1) to articulate their high achievement. Extremely low achievement was expressed as failing a course or failing to remain in university (C1, C2; “I failed all three times ... my GPA was too low so I got kicked out” C2). Students identified courses that are “vague” and uninteresting and the belief that one can not obtain high achievement and as contributors to low achievement (A3, C1) while natural ability and the desire to remain in university or attend a Master’s program were identified as contributors to high achievement (I3, C3, C1, A3). Similar to competence satisfaction, students with low achievement were especially likely to articulate the context specificity of achievement by stating it varied by course and institution (high school vs. university; C1, C4, C2).

This componential analysis was necessary to understand how each of the 10 constructs included in Study 2 are experienced and articulated by students. The resulting knowledge is

invaluable to the theoretical understanding of academic motivation within individuals and expands on existing knowledge generated primarily through variable-based survey analysis. This thorough understanding of each construct informed the structural analysis which focused on relationships between each construct.

Structural Analysis. Structural analysis involved a systematic examination of each of the 42 potential relationships of interest in Study 2. Any evidence of these relationships was extracted from interview transcripts and used to categorize the relationship according to Table 5-3. The relationships as understood by all 12 participants will now be discussed in the following order: relationships between achievement goals and outcomes; relationships between SDT constructs and outcomes; and, relationships between SDT constructs and achievement goals. Further evidence for each relationship, including all direct quotations from transcripts is provided in the variable matrices (Appendix E).

Achievement Goals and Outcomes. The relationship between mastery and performance goals will now be further discussed as well as the relationships between these goal types and outcome constructs of achievement, well-being, and dedication. In general, Mastery goals appeared to have a consistent unidirectional effect on achievement and well-being while their relationship with dedication was more complicated. Contrarily, performance goals appeared to be affected by dedication and achievement but had a reciprocal relationship with well-being. However, each of these relationships was complex and multifaceted as is the case in the domain of the real. Interviewee supported relationships are shown in Figure 5-4 and described below.

Mastery goals and performance goals. As previously discussed, all but one interviewee (C1) provided evidence for the conceptual similarity of mastery and performance goals and

seven discussed a contextual relationship. In addition to this, five students (I2, I3, A2, A3, C1) believed that obtainment of mastery goals caused future attainment of performance goals: “if you understand things ... then you will do better than other people” (I2); “I feel like I could get a higher mark, just because I understand the stuff” (A3); ““if I actually understand it and can explain it in my own words or ...then I will remember it when it comes to an exam” (A2). For two of these students (A2, C1), this relationship was reciprocal in that one’s desire to ultimately obtain performance goals caused them to set mastery goals (e.g. “I try to strive to learn the material and understand how to do it so that I can get a good mark” C1). However, this relationship may only exist among students who expect to obtain their goals based on prior performance; indeed, A3 indicated that, for him, not obtaining performance goals (e.g. doing worse than others) in a specific subject is related to replacing these goals with mastery goals (e.g.

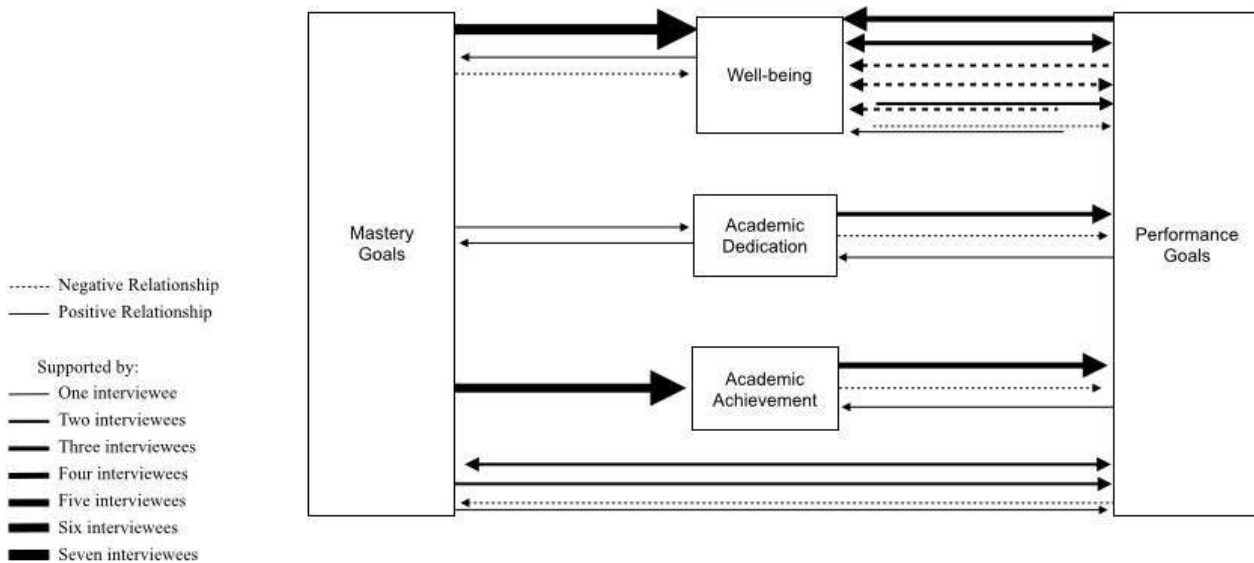


Figure 5-4. Graphic representation of relationships between AGT and outcome constructs as experienced by all interviewees. Thickness of line represents the number of interviewees who supported this relationship. Reciprocal relationships are represented by double-headed arrows; contextual relationships and conceptual similarity are not shown.

do as well as you can) in that course. Interestingly, it appears not attaining mastery goals may lead one to set mastery goals in the future while not attaining performance goals makes one avoid setting future performance goals (A1). One's propensity toward setting each type of relationship does not appear to affect this relationship as it was unclear for most students whether their desire to obtain performance goal caused them to set mastery goals (i.e. learn material to get a good grade) or whether their desire to obtain a mastery goal causes them to obtain performance goal (i.e. desires to learn material and gets good grades as a side-effect).

Mastery goals and academic achievement. Half of the transcripts (I2, I3, A1, A2, A4, C4) contained evidence for a positive relationship from mastery goals to achievement. Specifically, obtainment of mastery goals (e.g. fully understanding course content) causes high achievement (e.g. "if you understand it, you for surely get a good mark" I2; "I have to know the information well to get a good mark" A2) and therefore one sets mastery goals in order to obtain high achievement ("to get that high of a mark I have to understand the material" I2). However, two students (I4, A3) stated there is no relationship as "a good grade doesn't always necessarily reflect what you ... take away from the class" (A3) and it is perceived to be possible to obtain a low grade despite understanding the content. Indeed, C4 stated that that the positive unidirectional relationship "should" exist but may not always exist depending on the instructor, test, etc. Furthermore, learning the material was not necessarily essential to obtain high achievement as one could do so without obtaining mastery goals if they are able to "regurgitate" the information (I2).

Conceptual similarity between mastery goals and achievement was identified within three of the transcripts (I2, A2, A4) such that academic achievement (i.e. marks) are used as an

indicator of having obtained a mastery goal (e.g. “marks definitely reflect just on how much I understand” I3, “a representation of how well you know your stuff” A2). For some students, the ultimate goal of obtaining high marks is most valued while others value the intermediary goal of learning the material. In addition, mastery goals appeared to mediate the achievement-well-being relationship such that if mastery goal are attained, well-being is not threatened by obtaining a low grade. The remaining four transcripts (I1, C1, C2, C3) did not contain any codings for this relationship and this relationship did not appear to be affected by students’ level of achievement or propensity toward mastery goals.

Mastery goals and academic dedication. There was no consensus among students regarding a mastery goals-dedication relationship. The majority (I3, I4, A1, A2, A3, A4, C2, C3) did not discuss this relationship at all while I2 discussed the absence of a relationship and I1 discussed only a contextual relationship. Specifically, dedication to complete a professional degree appears unrelated to mastery goals for I2 as she currently does not set mastery goals because her focus is on outperforming others in order to be admitted into a to professional college; however, I2 believes she will set mastery goals once she is admitted to this professional college despite experiencing high dedication in both instances. For I1, mastery goals (to learn the information) and obtaining a degree are two distinct goals as obtainment of mastery goals is needed to receive a degree and a degree is a reflection of having obtained mastery goals, but the two constructs do not necessarily influence each other.

Contrarily, C1 and C4 each discussed a positive unidirectional relationship between dedication and mastery goals but disagreed on the direction of this relationship. C1, who experienced low mastery goals, believed that her low dedication toward university caused her to

avoid setting mastery goals but expected increased dedication in the future to lead to the adoption of mastery goals: “if I found something and I was like ‘this is what I want to do for the rest of my life’ then I would be like ‘okay, I want to learn this, like I want to understand it’ (C1). Contrarily, C4, who experienced high mastery goals, believed that easily obtaining mastery goals (e.g. understanding course content) lead to his increased dedication toward specific a program and courses. Therefore, the mastery goal-dedication link of AGT may only exist when students are able to obtain their mastery goals and the inverse dedication-mastery-goal link may exist among students with pre-existing low dedication.

Mastery goals and well-being. The majority of students discussed elements of a positive, unidirectional relationship between mastery goals and wellbeing such that obtaining mastery goals causes enhanced well-being (I1, I2, A2, C3, C4; “learning about nutrition ... makes me happy” I2) and not obtaining mastery goals causes decreased well-being (A1, A2, A3, C3, C4; “if I don’t achieve what I think I can do, like my personal best, it’s disappointing” A2). A2 further elaborated that the negative effects of not obtaining mastery goals (e.g. disappointment, worry) and the positive effects of obtaining mastery goals (e.g. excitement, self purpose) were greater than the effects of obtaining or not obtaining performance goals. However, for I1, who was highest in well-being, the mastery goal-wellbeing relationship was only facilitating such that not obtaining mastery goals did not impact her wellbeing because “I know that what I did was all that I could do and so I’d still feel okay” (I1), suggesting that this relationship may be conditional upon pre-existing well-being.

Furthermore, while mastery goals have an impact on well-being once they are ultimately obtained, the act of setting mastery goals may actually hinder well-being in the short term if

obtainment of that goal is a “struggle” (I4). This highlights the relevant distinction between goal setting, which may hinder well-being, and goal attainment, which may promote well-being. The only student low in both mastery goals and well-being did not discuss the effect of goal attainment on well-being; rather, C1 only discussed the effect that her well-being has on mastery goal attainment. Specifically, positive well-being (not feeling “overwhelmed”) promotes attainment of mastery goals (“it’s pretty easy to learn the material”). She was the only participant to perceive the relationship in this direction, suggesting that the direction of the relationship is conditional upon one’s pre-existing well-being or propensity toward mastery goals (C1 was low on both constructs while all others were high or moderate). Attainment of mastery goals also appears to protect one’s well-being against the negative effects of low achievement or not obtaining performance goals (C4). The remaining three students (I3, A4, C2) did not discuss this relationship.

Performance goals and academic achievement. All transcripts contained evidence of conceptual similarity between performance goals and achievement such that achievement was used both to define performance goals and as an indicator of having obtained a performance goal. For example, both achievement and performance goals are defined in terms of marks/grades or passing/failing and students tended to present high achievement (e.g. good grades, overall average) as evidence for having obtained a performance goal (demonstrated competence, outperformed others): “to get a higher mark than somebody” (I2); “I usually get pretty good marks in my classes ... that shows that I’m able to do well” (C2). Furthermore, for I2 and I3, subjectively high achievement was inherently the same as outperforming others: ““if I’m achieving good marks, I should be more or less top of the class” (I3). Despite this conceptual

similarity, obtainment of performance goals defined through achievement (specific marks, average) may be more valued than obtainment of performance goals of outperforming others: “I usually look at how other people did after I find out my marks” (A2).

Despite this consensus of conceptual similarity, four students (I1, I3, A2, C1) also discussed a positive, unidirectional effect of achievement on performance goals such that previous achievement influences the specific performance goals one sets. That is, those accustomed to high achievement set high performance goals (e.g. “I’ve progressively gotten better and gotten better marks and I think that makes me higher my expectations of myself ... and realize that I can do more things” I3) while those with low previous achievement set lower performance goals such as simply passing the class: “if I do bad in a course, then I kind of lower my goals” (C1). However, I4 stated that low achievement in a course would cause him to set an even higher performance goal to “make up for” or “average out” the poor grade, suggesting that the relationship functions differently for those with especially high past achievement. Another student with especially high achievement believed that her desire to outperform others (i.e. propensity toward setting performance goals) contributed to her high academic achievement; she was the only student to discuss this relationship in this direction. Despite these two inconsistencies (I4 and I2), this relationship did not appear to be conditional upon students’ level of achievement or propensity toward performance goals as others high in both constructs endorsed the more consensual relationship of achievement influencing the performance goals one sets.

Performance goals and academic dedication. The majority of transcripts had either no codings for a potential performance goals-dedication relationship (I4, A4, C4), no evidence for a

relationship (I1, C2), or discussed a contextual (A1) or conceptual (C3) relationship only.

Specifically, high dedication to obtain a degree and the desire to demonstrate competence (i.e. set performance goals) are conceptually similar because getting a degree is a demonstration of competence. In addition, if one drops out (e.g. low dedication), then one can not obtain their performance goals (e.g. do well in courses) and therefore these constructs exist in the same context but may not necessarily influence each other. Indeed, four students (I1, I2, I3, C3) claimed that setting or obtaining performance goals does not affect their dedication: “I’m not going to give up on chemistry because I failed the lab” (I2). However, A3 stated “if I don’t make those goals, I don’t know what I’m going to do” implying that if he did not earn sufficient grades to be accepted into film school he may not complete his Arts and Science degree; thus, while not obtaining performance goals may not reduce one’s dedication toward specific courses, it may hinder one’s long term dedication toward certain careers or degree completion. A3 was the only student to discuss this relationship in this direction.

Contrarily, three students (I2, I3, A2) discussed the inverted relationship such that high dedication to attend a master’s program or professional college caused them to set performance goals because they knew that they must have high averages and perform better than others to be admitted into their college of choice: “if I’m better than like all the people that I know, I have a chance higher of ... getting into med school” (I2). However, C2 and I1 maintained that dedication to complete their degrees did not influence the types of performance goals set because, for these students, setting lower goals (e.g. pass the class vs. obtain high marks) would still lead to obtaining their degree which is the target of their dedication. Therefore, it appears the influence of dedication on performance goals may be conditional upon the target of one’s

dedication (undergraduate degree vs. professional college). Indeed, I2 believes that once she is admitted into the college of medicine, she will cease to focus on performance goals despite having the same dedication to complete her degree. In addition, C1 believes her low dedication caused her to focus on performance goals as opposed to mastery goals: “[my main goal is] to be able to answer the questions on the test ... if I found something and I was like “this is what I want to do for the rest of my life” then I would [want to learn the material], I just don’t know if I’ve found what I want to do for the rest of my life”, further suggesting that the performance goals-dedication relationship is context specific.

Performance goals and well-being. Only one transcript (A4) did not have a coding for the performance goals-well-being relationship while half (I1, I2, A3, C1, C2, C3) supported a reciprocal relationship and five (I3, I4, A1, A2, C4) supported a unidirectional relationship such that performance goals influence well-being but well-being does not affect performance goals. In total, 10 participants (I1,A1, C1, C2, I2, I4, C3, A3, A3, I3) endorsed a positive relationship wherein attainment of performance goals enhances well-being while non attainment hinders well-being and four endorsed a negative relationship (I1, C4, I3, A3) wherein setting performance goals hinders well-being while not setting performance goals maintains it. This highlights the distinction between long-term and short-term well-being as setting performance goals may cause an immediate decrease in well-being but may ultimately cause increased future well-being if one obtains their goal.

Regarding the negative relationship between setting performance goals and well-being, the desire to set performance goals (“I’m competitive”) was related to decreased well-being (“brings a lot of negative mental stress”; A3). Similarly, students stated that the existence of

performance goals (e.g. being “socially conscious” of others (I1), striving to outperform others (C4) resulted in lowered well-being (e.g. “cooped up worrying” (I1), “shock” and “discouragement” C4), especially if one perceived obtainment of this goal to be difficult. Contrarily, a lack of performance-approach goals (e.g. “not conceded about others’ grades” I1) was related to increased well-being (e.g. “easier to be here” I1): “I wouldn’t be upset with myself as much if [the grade I need] wasn’t ... as high” (I3).

Regarding the positive relationship between performance goal obtainment and well-being, students uniformly agreed that obtaining performance goals enhanced well-being (e.g. “feels good ... makes me a happier person” I1; “it gives me satisfaction when I get good grades” C1) and not obtaining performance goals hinders well-being (e.g. “not doing as well as them ... brings me down” I1; “if somebody ever got a higher mark than me it would bother me to the extreme” I2): “[when] setting goals about marks and you achieve them, that makes you feel good about yourself, if you don’t achieve them, then you don’t” (A2). Exceeding performance goals may have an especially high impact on well-being (A2).

This relationship appears to be mediated by competence satisfaction such that not obtaining performance goals has a larger effect on well-being if one felt they were competent in the area (C1, I3, A3): “[when] I did really really bad [on an essay], I was like a little devastated because, like I always thought that I was really good at [writing essays]” (A3); “if I thought I was good at it but I wasn’t getting good grades in the class, then I would probably not enjoy it as much, or it would frustrate me” (C1). As a result of this relationship, some students refrain from setting performance goals in order to maintain positive well-being (I1, A1, C2) or choose to focus on mastery goals instead (C2, A3, A2). Indeed, obtaining or not obtaining performance

goals appears to have less of an impact on well-being than obtaining or not obtaining mastery goals (A2). Obtainment of an accompanying mastery goal may also mediate the negative affect of not obtaining a performance goal (I4).

The six participants who believed the performance goal-well-being relationship was reciprocal also discussed the inverse relationship wherein well-being influenced performance goals. According to four participants (I1, A3, C2, C3), high well-being (e.g. “positive attitude” I1; “feeling good about it” C3) enhances one’s ability to obtain performance goals: “you have to be positive, in a mentally and physically positive area to be able to ... achieve what you want to do” (A3). On the other hand, poor well-being was expected to cause an increased desire to set performance goals (I1, I2, C1): “if I was not so positive, I’d definitely be more worried about other people’s grades” I1; “my negative feelings affect the goals that I set ... my goals are probably lower [to pass vs to learn the material] because I feel uninterested and negative” . Indeed, I2 stated that her way of overcoming poor well-being caused by not obtaining a performance goal is to set future performance goals and focus on those: “you just have to think ... you’re going to do better and how you’re going to improve” (I2). The performance goal-well-being relationship did not appear to be affected by students’ level of well-being or propensity toward performance goals.

SDT constructs and outcomes. The relationships between outcome constructs (achievement, dedication, and well-being) and psychological needs (autonomy and competence satisfaction) and motivation types (intrinsic, autonomous, and controlling motivation) were also coded and analyzed. Both autonomy and competence satisfaction appeared to cause enhanced well-being and dedication while academic achievement was unrelated to autonomy but

reciprocally related to competence satisfaction. Competence satisfaction was also reciprocally related to well-being and dedication. Intrinsic motivation positively affected all outcome constructs as expected, but was also reciprocally related to well-being and dedication.

Autonomous motivation was reciprocally related to all outcome constructs although some students perceived unidirectional and negative relationships. Controlling motivation negatively impacted well-being but appeared to positively affect dedication and was influenced by

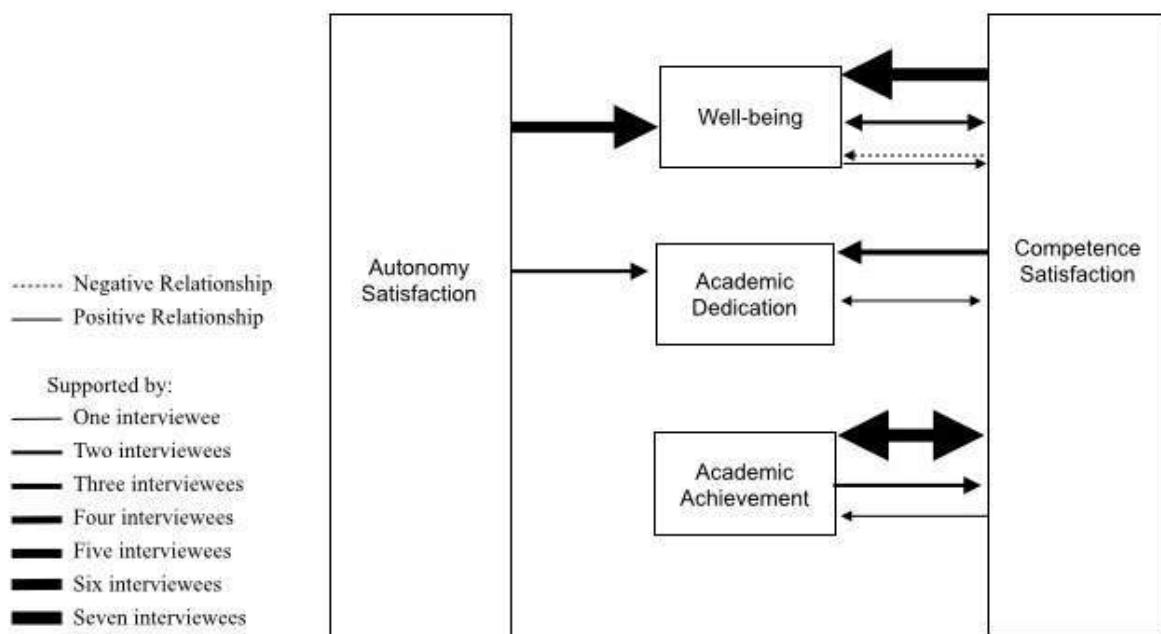


Figure 5-5. Graphic representation of relationships between psychological needs and outcome constructs as experienced by all interviewees. Thickness of line represents the number of interviewees who supported this relationship. Reciprocal relationships are represented by double-headed arrows; contextual relationships and conceptual similarity are not shown.

achievement. These relationships are depicted in Figures 5-5 and 5-6 and discussed below.

Autonomy satisfaction and academic achievement. The relationship between autonomy satisfaction and academic achievement was not coded in any of the 12 interviews suggesting that this relationship either does not exist or is not salient among the interviewed students.

Autonomy satisfaction and academic dedication. The relationship between autonomy satisfaction and academic dedication was only coded within four transcripts, two of which (I1, A2) contained only a contextual relationship. That is, high autonomy and high dedication appear to co-exist but may not influence each other as both I2 and A2 experience high autonomy satisfaction in choosing a field in which to complete a degree and are dedicated to completing this degree but there is no evidence that the two constructs influence each other. Contrarily, I2 and C2 perceived a facilitating unidirectional relationship wherein high autonomy satisfaction in choosing a degree increases one's dedication toward that degree but low autonomy satisfaction does not necessarily hinder dedication. This relationship appeared to be mediated by intrinsic motivation such that if one is intrinsically motivated, having low autonomy does not decrease their dedication and if one is not intrinsically motivated, high autonomy does not increase dedication. One's level of autonomy satisfaction and dedication did not appear to affect this relationship.

Autonomy satisfaction and well-being. Half of the interviewees perceived a positive, unidirectional relationship from autonomy satisfaction to well-being such that high autonomy causes increased well-being and low autonomy hinders well-being. Students discussed this relationship in terms of autonomy when engaging in one's courses (I2, I3, I4, A3; e.g. feeling free to choose where to study makes one "very happy" I2; "you kind of get to do your own thing

and make your own choices ... this year has been incredibly liberating academically and personally, because I've been making my own choice), autonomy to choose one's courses: ("people pushing me toward medicine ... would make me more stressed ... I'm making my own decisions so I'm kind of controlling the outcome ... then when you do get a positive experience out of it, it feels better" A2), and autonomy to be one's self on campus ("as I got my personal life sorted out ... suddenly everything was better" A3).

This relationship appears to exist for students whether they are high or low in autonomy satisfaction, but may only exist for those with a moderate, or fluctuating level of well-being. For example, I1, the only student high in both autonomy and well-being, experienced only a contextual relationship between the two such that both flourished in the same context (i.e. when intrinsic motivation was high) but did not directly affect each other. That is, I1's wellbeing was not hindered or enhanced by freedom or lack of freedom when engaging with her courses because she enjoyed all academic activities. Furthermore, it is possible for autonomy satisfaction to hinder well-being in some cases such as when one experiences high autonomous motivation to obtain a degree but chooses not to engage in specific academic activities: "[you have choice but] there's consequences to your actions ... if you're in a situation that's like 'oh, I don't have to go, I could not go'[and you choose not to go] then you suffer for it" (A3). This potential mediation of intrinsic and autonomous motivation highlights the conceptual distinction between autonomy to engage in courses and autonomy to be one's self; that is, autonomy to engage in courses may have a conditional relationship with well-being while autonomy to be one's self may always enhance well-being (A3). The remaining five interviewees (A1, A4, C1, C2, C2) did not discuss an autonomy-well-being relationship.

Competence satisfaction and academic achievement. The majority of students supported a positive, reciprocal relationship between competence satisfaction and academic achievement (I1, I2, I3, I4, A1, A2, C2) and three others supported one direction of this relationship (A3, C2, C3). Specifically, seven students (I1, I2, I3, I4, A1, A2, C1) believed that high achievement (e.g. earning subjectively high marks) promoted competence satisfaction within the course (“I bet I can do really good on the next part” I1) and in general life (“the better I do, the more confident I feel” I3). Although two students (I1, I2) believed this relationship was only facilitating in that lowered achievement did not lower competence satisfaction (e.g. “I still feel like I can do it” I1), five others (A1, A3, C1, C2, I4) believed that a low grade hinders competence satisfaction: “if I do bad, then it kind of like lowers my confidence” (C1). This relationship may be mediated by mastery goals or well-being as it appears low relative achievement (“my mark have gone down a little” I2) does not decrease competence satisfaction if one feels that they can still “explain things to people” (I2), “understand the material” (I4), or are “personally fulfilled”: if I feel personally fulfilled, that could be enough to make me feel like I’m succeeding ... even if the mark is bad” (A3).

Regarding the inverse relationship, eight students (I1, I2, I3, I4, A1, A2, C2, C3) believed that high competence satisfaction caused higher academic achievement and three (A2, C2, I3) believed that low competence satisfaction caused low achievement. Specifically, most students believed that one must “feel competent, think confident about yourself” (I2), and expect to do well in order to actually do well. Despite this general consensus, most students did not support the inverse relationship wherein low competence causes poor achievement and some explicitly refused to attribute their low achievement to low competence (I4, A1, A2, C2, C4). This may

result from the mediation of mastery goals wherein students' competence is maintained despite low achievement if they believe they understand the material and thus they do not attribute their poor achievement to low competence because they believe their competence to be high (I4, C4). Alternatively, this may be the result of an attribution error wherein students are willing to attribute high grades to their inherent competence but attribute low grades to external factors (e.g. "how the question is asked" C4) rather than admit low competence.

The competence-achievement relationship may also be mediated by autonomous motivation (I3, A2, C3). That is, competence satisfaction may not directly impact achievement; rather, high competence satisfaction may foster one's autonomous motivation toward studying which causes the increased achievement: "if I don't feel like I'm going to do very good at the class ... it's going to be harder to like apply myself and get the marks that I want to" A2; "based on how competent I am, I think that it makes me want to work harder and get better grades" I3. In some cases, low competence satisfaction causes one to "spend more time" on courses or "study more" (A2) which leads to increased achievement, thus supporting autonomous motivation as a mediating variable. However, increased studying as a result of low competence satisfaction may foster improved future competence satisfaction which is then associated with the high grades (C3). It is unclear whether the increased autonomous motivation or resulting competence satisfaction causes the increase in achievement as certain students attributed both constructs to their achievement.

This relationship and its salience for students may be partially an artefact of the high conceptual similarity between achievement and competence satisfaction (I3, A4). Specifically, competence is usually defined in terms of achievement (e.g. "I typically get pretty good marks in

my classes ... I guess that shows that I'm able to do well" A2) and both constructs co-exist in the same contexts which may further inflate the perception that they are related. For example, both competence and achievement thrive when one experiences high autonomous or intrinsic motivation as well as when one obtains mastery or performance goals (I3). Finally, the competence-achievement relationship appears to influence intrinsic motivation and well-being such that if competence satisfaction is high but achievement is low, intrinsic motivation and well-being are both decreased: "if I thought I was good at it but I wasn't getting good grades in the class, then I would probably not enjoy it as much, or it would frustrate me".

Competence satisfaction and academic dedication. Half of the interviewees did not discuss a competence-dedication relationship (I1, I3, I4 A1, A3, C3) and one (C2) discussed the lack of a relationship while another (C4) discussed only a contextual relationship. Specifically, low competence satisfaction appears to be unrelated to C2's high dedication as failing a course multiple times does not deter her from her program or from re-taking the course. For C4, dedication to obtain his degree and the perception that he will be able to obtain his degree (i.e. competence satisfaction) co-exist in an academic context but do not influence each other.

Contrarily, four students (I2, A2, A4, C1) supported a positive relationship such that competence satisfaction increases their dedication while reduced competence satisfaction causes low dedication. This relationship was evident within specific courses (e.g. "I have no competence in math ... I'm not taking any math courses" C1) and well as in course selection as pre-existing competence satisfaction is related to increased dedication to enrol in certain courses (I2, C1). Similarly, high competence satisfaction in general was related to high dedication to pursue a prestigious degree: "I'm competent so might as well do all that I can do ... if I want to

be a doctor, I might as well do that rather than just be like a lab tech”(A2). For I2, this relationship was also reciprocal as her dedication toward a medical degree appeared to satisfy her need for competence: “the idea of becoming a good doctor also gives me confidence”.

For two (C1, A4) of these students, this relationship was conditional upon the context in which competence was satisfied and one’s level of autonomous motivation. Specifically, one may have low competence and little dedication toward one course (e.g. math) but high competence and dedication in others; as long as one feels competent in something, their overall dedication to complete a degree will be retained: “dropping out would be ...completely giving up on it altogether? ... I know that I have areas where I excel and ... areas where I don’t ... but I would never drop out” (C1). Similarly, compared to practical activities, A4 does not believe that university is the best way to satisfy competence (i.e. he is not autonomously motivated to attend) and thus experiences low dedication to attend despite experiencing high competence satisfaction within his specific courses. The competence-dedication relationship did not appear to be affected by one’s level of competence satisfaction or dedication.

Competence satisfaction and well-being. A positive relationship from competence satisfaction to well-being was supported by 75% of students. Thus, it appears high competence satisfaction causes positive well-being (I1, I2, A2, C1, C3, C4; “I feel that I’m good at it and it gives me satisfaction” C1) while low competence satisfaction causes negative well-being (A1, A2, I2, I3, I4): “it is kind of disappointing when you do worse than you expected but it’s nice when you do better than you expected” (A2). This relationship exists at the level of one’s general competence satisfaction which enhances one’s overall well-being (I2) as well as at the level of a specific course which may enhance content-specific competence satisfaction resulting

in improved short-term well-being by reducing “anxiety” or “stress” toward the course (C1). Furthermore, the negative effects of low competence on well-being may be especially damaging if one previously experienced high competence satisfaction (A2, A3). However, among those with especially high well-being, hindered competence satisfaction does not appear to affect well-being (I1).

This relationship may be mediated by academic achievement such that high competence satisfaction can cause reduced well-being if one’s academic achievement does not reflect their perceived competence: “when I got this essay back and I did really really bad, I was like a little devastated because, like I always thought that I was really good at writing essays” (A3); “if I thought I was good at it but I wasn’t getting good grades in the class ... it would frustrate me” (C1). However, competence satisfaction may also mediate the achievement-well-being relationship such that high competence satisfaction protects against hindered well-being resulting from low grades (C4, I2). For two students (I1, C1), the competence-well-being relationship was reciprocal in that positive well-being (e.g. positive attitude, not feeling overwhelmed) caused increased competence satisfaction (e.g. “accomplishments” I1; “I feel capable of doing well” C1) which in turn further enhanced well-being as discussed. A3 also endorsed this relationship but believed it was mediated by intrinsic motivation such that low well-being (e.g. frustration) only hindered competence satisfaction if one also experiences low intrinsic motivation: “if ... I don’t find ... joy in it, I’m not going to feel like I’m succeeding because I’m frustrated” (A3). The remaining two students (A4, C2) did not discuss a competence-well-being relationship.

Intrinsic motivation and academic achievement. Seven students supported a positive, unidirectional relationship between intrinsic motivation and achievement, five of whom believed

intrinsic motivation influenced achievement (I2, I3, A2, A3, C2) and two of whom believed achievement influenced intrinsic motivation (A4, C1). Of the remaining students, three did not discuss this relationship (I1, A1, C3), one (I4) argued that an intrinsic motivation-achievement relationship did not exist, and two perceived a contextual relationship (A3, C4) such that both intrinsic motivation and achievement exist in similar contexts but do not influence each other.

Regarding the positive, unidirectional relationship, low intrinsic motivation was believed to make attainment of grades more difficult (I3, C2, A2; e.g. “some other classes that ... don’t draw as much of an interest, I definitely see my marks not as high in those” I3; “[if I’m] not going to enjoy [a course] it’s going to be harder to like apply myself and get the marks that I

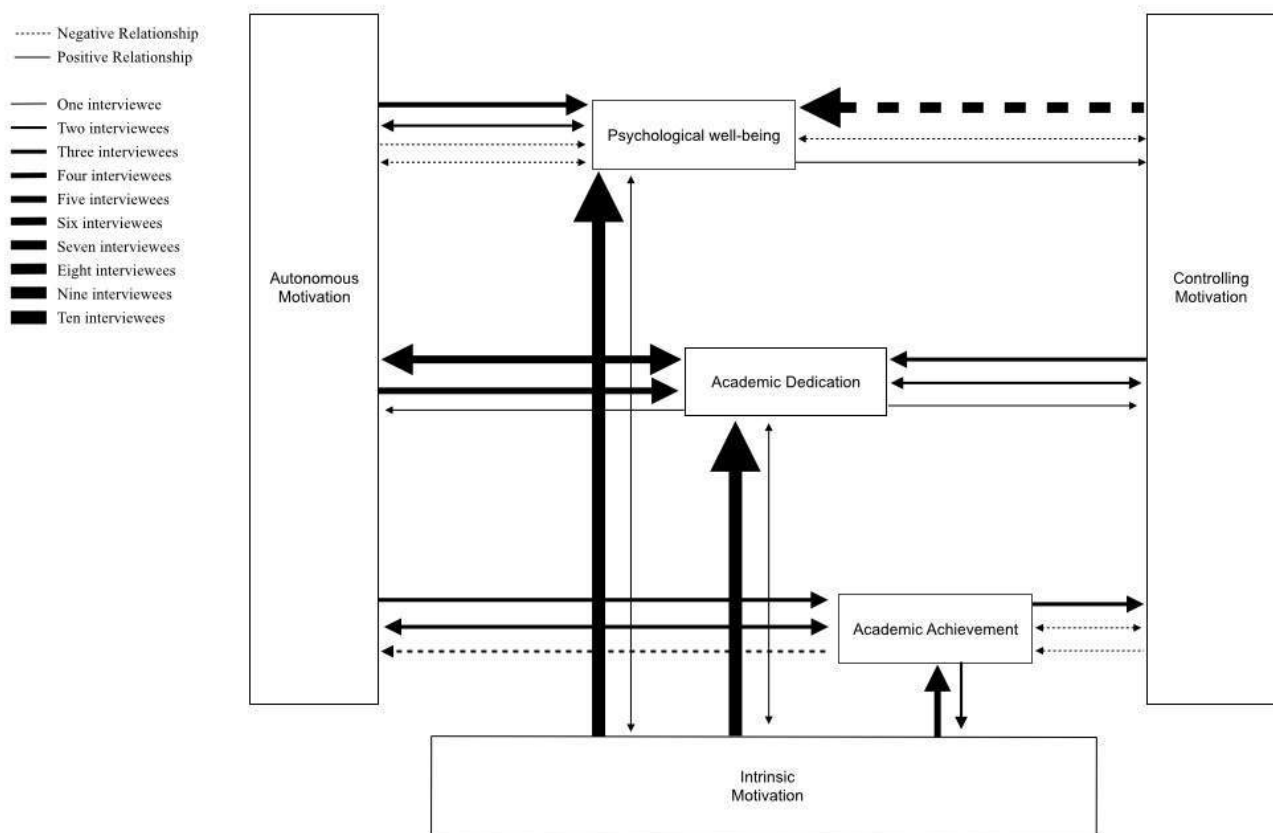


Figure 5-6. Graphic representation of relationships between motivation types and outcome constructs as experienced by all interviewees. Thickness of line represents the number of interviewees who supported this relationship. Reciprocal relationships are represented by double-headed arrows; contextual relationships and conceptual similarity are not shown.

want” A2) while high intrinsic motivation was believed to contribute to high academic achievement (I2, A2, A3, I3; e.g. “if I have an interest in them, I think my marks definitely reflect that a lot” A2; “one class ... I found really interesting is my highest mark... I expected more from myself because I actually enjoyed reading the material” A2). However, as demonstrated in these quotes, nearly all students who supported this relationship stated that it was highly mediated by performance goals (e.g. “I expect more from myself” A2) and/or autonomous motivation (e.g. “harder to apply myself” A2) as one sets higher goals and dedicates more time to studying courses one is interested in. Indeed, autonomous motivation appeared to be a greater contributor to academic achievement than intrinsic motivation as students are able to obtain high achievement without intrinsic motivation if they are autonomously motivated or set performance goals (I2, I4). Similarly, some students had low achievement despite high intrinsic motivation (A3) and thus perceived a contextual relationship only.

Interestingly, this direction of the relationship (intrinsic motivation influencing achievement) was only supported by those with high (I2, I3, A3) or moderate (A2, C2) intrinsic motivation while the inverse relationship (achievement influencing intrinsic motivation) was only supported by those with low intrinsic motivation (C2, A4). That is, for those with low intrinsic motivation, obtaining “good marks” is in itself enjoyable and thus promotes intrinsic motivation toward the classes in which one obtains high grades (A4, C1); similarly, low achievement hinders one’s enjoyment of a course: “if I wasn’t getting good grades ... I would probably not enjoy it as much, it would frustrate me” (C1). This may be mediated by competence satisfaction in that high achievement promotes competence which also facilitates intrinsic motivation. Finally, it appeared that when students enjoyed a class, they attribute less

weight to achievement earned (C4).

Intrinsic motivation and academic dedication. All but two interviewees (A1, A2) perceived a positive, unidirectional relationship from intrinsic motivation to academic dedication; A2 also perceived this relationship but believed it to be reciprocal and A1 did not mention this relationship. Specifically, high interest or enjoyment toward a course, program, or the university in general (e.g. “I love it here” I1) increased one’s dedication toward that course (C4), degree program (I2, I3, C2), or toward the completion of a university degree in general (A4, I1, I4 C3): “I really enjoy what I’m doing, so ... I’ve never really even thought about a different career ... I don’t really see [dropping out] happening ever ... I enjoy it and that’s why I stay” (I2). Furthermore, desire for future intrinsic motivation is related to increased dedication to a complete degree: “I want to do something I enjoy ... for most of that ... you have to go to university” (A2). Although one could argue that high intrinsic motivation is related to decreased motivation to complete one’s degree *quickly* (e.g. I1 is “okay” with stretching her degree over six years because she enjoys it), this negative relationship was not explicitly mentioned by any of the interviewees.

Conversely, lack of intrinsic motivation (e.g. no interest in course content) decreased one’s dedication to pursue a field long term and prompted them to seek an area for which they are intrinsically motivated in order to increase dedication (C1, I3, A3, A4, I4): “I would be a lot more dedicated for sure ... if I was enjoying what I was learning and if I was interested”(C1); “I wouldn’t be in the schooling that I am if I didn’t enjoy it ... if I got through the first ... few years and I really hated it, I think I would be doing something else” (I3). Furthermore, A2, the only student to experience a reciprocal relationship, expected her intrinsic motivation to increase

once she enrolled in courses more directly related to the field she is dedicated to. This relationship did not appear to be mediated by autonomy or competence satisfaction as students were dedicated to complete the courses they enjoyed even if these courses did not inspire autonomy (C2) or competence (A3). Interestingly, intrinsic motivation may only need to be moderately high to increase dedication; that is, A4's intrinsic motivation was "not the same enjoyment as playing sports" (i.e. relatively lower), but still caused him to be dedicated toward his current program despite previously dropping out of a program for which he was not intrinsically motivated. This intrinsic motivation-dedication relationship appeared to exist regardless of students' level of intrinsic motivation or dedication.

Intrinsic motivation and well-being. All but two interviewees (A3, A4) perceived a positive, unidirectional relationship from intrinsic motivation to well-being; A3 also perceived this relationship but believed it to be reciprocal and A4 had no codings for this relationship. However, two transcripts (I2, C1) also demonstrated the close conceptual similarity between intrinsic motivation and well-being which may complicate students' perception of this relationship. For example, expressions of high intrinsic motivation can often also be coded as expressions of high well-being (e.g. "I enjoy it, it gives me happiness" I2; "I enjoy art ... and it gives me satisfaction" C1) and expressions of low intrinsic motivation can often be coded as expressions of poor well-being (e.g. "I would probably not enjoy it as much, or it would frustrate me" C1).

Despite this conceptual similarity, high intrinsic motivation was believed to enhance well-being (I1, I2, I3, I4, C3, C4; e.g. "after I have a good class and I feel I engaged really well, I feel like I could like take on an army ... I feel like if I wasn't, I wouldn't be so happy and

wanting to participate in anything if I wasn't enjoying my courses" I1) and low intrinsic motivation was believed to hinder well-being (I1, I4, A1, A2, A3, C1, C2, C4; e.g. "the negative feelings come from my lack of interest" C1). A sudden decrease in intrinsic motivation may be especially damaging to wellbeing: "It's discouraging when... you find that something that you once really loved to do isn't as exciting - you're not as motivated anymore... you worry about that... and that can be upsetting" (C4). However, positive well-being can be retained by engaging in activities for which one is intrinsically motivated: "I was happy that I found a new area of interest" (C4). Only A3 perceived this relationship to be reciprocal, indicating that low well-being within a course decreased her intrinsic motivation toward it. This intrinsic motivation-dedication relationship appeared to exist regardless of students' level of intrinsic motivation or well-being.

Autonomous motivation and academic achievement. Four students did not discuss a relationship between autonomous motivation and achievement (I1, A4, C2, C4) while another discussed only conceptual similarity (C1). The remaining students discussed reciprocal (A2, A3, I2, I3) or unidirectional (I4, A1, C3) relationships but disagreed on their directionality. The conceptual similarity coded within four transcripts (C1, I2, I3 A2) was such that students reported being autonomously motivated *toward* academic achievement; that is, they believed "marks are important" (A2) and freely chose to be motivated to obtain high marks. This conceptual similarity made it difficult to distinguish the two constructs when inferring cause and effect relationships.

Three students (I3, A2, A3) described a positive, reciprocal relationship such that high autonomous motivation to engage in courses or to attend a graduate program contributed to their

high achievement (e.g. “it was when I actually went to class and like took notes and actively listened to what the prof was saying that my marks increased” A2) and this high achievement lead to a greater increase in autonomous motivation: “having a good mark is really motivating” (A3); “my marks have been going up so that’s like a strong motivation to keep doing what I’m doing”(A2). Similarly, low autonomous motivation (e.g. not applying one’s self) was related to lower achievement. However, if one’s autonomous motivation is already high, then low achievement may not lead to decreased motivation: “[I] continue to do it - even if the mark is bad” (A3). The desire for and belief that one can obtain high achievement was also related to increased autonomous motivation (A3, A2): “I would probably put a lot more time into that course, just because I feel like I could get a higher mark” (A3).

Three other students also supported the positive effect of autonomous motivation on one’s ability to obtain high achievement but perceived the relationship to be either unidirectional (A1, C3) or reciprocal with the inverse relationship being negative (I2). That is, I2, A1 and C3 all described how increased autonomous motivation to study, attend lectures, and keep up with course content caused their increased achievement albeit mediated by increased competence satisfaction and attainment of mastery goals (i.e. learning the material as a result of increased autonomous motivation). Unlike the other students who experienced a positive reciprocal relationship between autonomous motivation and achievement, I2 believed that achievement negatively affected her autonomous motivation because low achievement increased her autonomous motivation to obtain higher marks in the future in order to balance out the low mark and to “figure out” what she did wrong. For this student, high achievement does not influence her autonomous motivation as she “just continue[s] doing what [she’s] doing”. Similarly, I4

stated that low achievement enhances his autonomous motivation as it is perceived as a signal to “work harder”; but, this only occurs if he feels the low grade is justified. That is, receiving low grades with no explanation hinders motivation.

Autonomous motivation and academic dedication. Half of the students supported a positive, reciprocal relationship between autonomous motivation and dedication (I2, A2, A3, A4, C1, C2) and all others supported elements of this reciprocal relationship. That is, I1, I3, I4, C3 C4 supported a positive relationship from autonomous motivation to dedication and A1 supported a positive relationship from dedication to autonomous motivation. Although there was high consensus among students regarding these positive relationships, this may actually reflect the conceptual similarity between autonomous motivation to obtain a degree and dedication towards obtaining a degree rather than a true causal relationship between constructs. Indeed, four students (I4, A2, A4, C3) failed to clearly differentiate between these constructs.

Nevertheless, the positive effect of autonomous motivation on dedication was described by 11 interviewees (all but A1). Specifically, high autonomous motivation is related to increased dedication (e.g. “getting a degree ... furthers you in this world” I1; “I could never drop out of school because ... what else am I going to do? ... work at a crappy part time job for the rest of my life? ... I don’t want to do that” A3) and low autonomous motivation is related to low dedication (I1, I3, I4, A2; e.g. “if I didn’t have the motivation ... I wouldn’t be here at all” I1; “if I didn’t think it was important I probably wouldn’t be here” I3). This relationship appeared to exist at the level of autonomous motivation to complete university as well as autonomous motivation within specific courses. That is, a lack of autonomous motivation toward course content (e.g. belief that it does not apply to one’s life) is related to decreased dedication toward

that field (C1). Autonomous motivation held over a long period of time may have an especially large effect on dedication (I2, C2): “now that you’ve tried so hard and so long and just to quit?” (I2).

The inverse relationship (i.e. the effect of dedication on autonomous motivation) was also discussed by 8 interviewees (I2, A1, A2, A3, A4, C1, C2). High dedication to complete a degree or to obtain a specific profession enhances autonomous motivation as one becomes autonomously motivated to engage in their academic activities (e.g. go to class, study, apply for professional college, etc.) in order to ultimately obtain the degree and profession to which one is dedicated. High dedication even appears to enhance autonomous motivation in the absence of intrinsic motivation (A4). However, this relationship does not appear to apply to dedication to immediately obtain a degree as students may experience high dedication toward ultimately obtaining a degree but low autonomous motivation to engage in academic activities in the near future: “I thought about leaving school and taking a year off, then coming back ... it doesn’t matter when, I just got to get an education at some point ... I’d take time off ... but I’d always come back” (I2).

Autonomous motivation and well-being. Although only two students did not discuss this relationship (A1, A4) or believed there to be no relationship (I1), there was little consensus among the remainder regarding the nature of this relationship or its directionality and reciprocity. One student experienced a contextual relationship only wherein she was autonomously motivated to do her best and experienced low well-being if she did not but did not provide clear evidence of a direct relationship between autonomous motivation and well-being. Rather, it appeared autonomous motivation mediated the effect of mastery goal obtainment and well-being

for this student.

Half of the students supported a positive relationship such that autonomous motivation toward university (e.g. the belief that university is important and choosing to attend lectures or complete coursework) enhances well-being (I3, C1, C2, C4) while a decrease in autonomous motivation (e.g. feeling as though courses are no longer important or not having a clear future career path) hinders well-being (I2, A3, C2): “going to class makes me feel better about myself than just sleeping in ... it makes me feel better” (C4). This relationship appears to be mediated by intrinsic motivation and competence satisfaction such that the absence of autonomous motivation (e.g. elective courses that are not related to one’s future career) do not hinder one’s well-being if one is intrinsically motivated toward the course and/or if the course satisfies one’s need for competence. This relationship may also be mediated by mastery or competence satisfaction such that excerpting autonomous motivation within courses facilitates goal obtainment and enhances competence which further improves well-being.

For four students the relationship from autonomous motivation to well-being was unidirectional only (I2, I3, A3, C2) while the others (C1, C4) experienced a simultaneous relationship in the opposite direction (i.e. from well-being to autonomous motivation) such that the desire to enhance well-being in the future promotes autonomous motivation: “I still attend a lot of my lectures because ... I just feel better about my day if I know that I’m attending” C1. Contrarily, A3 believed his low well-being during the previous semester did not affect his autonomous motivation toward specific courses or university in general: “I’ve always been motivated to go to school, even when things were really bad” (A3).

I4 also perceived a reciprocal relationship between autonomous motivation and

wellbeing; however, for this student both relationships were negative and mediated by performance goals. Specifically, being highly autonomously motivated was perceived to hinder well-being as this student can not “let things go” and is anxious if academic activities are not completed or if performance goals are not obtained. This low well-being as a result of not obtaining high performance goals results in increased autonomous motivation to achieve future goals to make up for those not obtained. C3 also experienced a negative relationship between autonomous motivation and well-being such that high autonomous motivation to enroll in the “best” program for one’s future leads to low wellbeing when trying to make this decision or find this program this program. For this student, the relationship was unidirectional only.

Students’ level of autonomous motivation did not appear to influence this relationship. However, the only student to be classified as high in well-being (I1) was also the only student to believe autonomous motivation and positive well-being are entirely unrelated, suggesting that level of well-being may influence this relationship. Specifically, I1 claims to be a naturally happy person and does not think this would change if she did not feel university was important; she also feels that she would think university was important even if she was not as happy of a person. Therefore, the autonomous motivation-well-being relationship may only exist for those with moderate and fluctuating well-being but is still highly variable among these students.

Controlling motivation and academic achievement. Five students did not discuss a relationship between controlling motivation and academic achievement (I4, A4, C1, C3, C4), five discussed a relationship (I2, I3, A1, A2, C2) but disagreed on its direction and whether it was reciprocal, and two discussed a contextual relationship only (I1, A3). Conceptual similarity was also evident between the two constructs in that students claimed to feel pressured to obtain

high marks (A2) without clearly differentiating the two constructs. Others expressed this pressure to obtain high marks and differentiated the constructs but their transcripts still lacked evidence for a relationship between the two aside from simply existing in the same academic context (I1, I3, A3). For example, I1 experiences low controlling motivation and objectively low achievement but it is unclear whether low previous achievement resulted in less parental pressure to attend university or whether low external pressure to do well resulted in lower grades.

Contrarily, I3, A1, and A2 all clearly expressed a facilitating, unidirectional relationship such that high previous achievement increased their perceived societal and familial pressure to attend university; that is, high achievement in high school preceded their controlling motivation. In addition, a desire to maintain this high achievement further increased these students' internalized controlling motivation: "if you don't have the marks to get in, there's not really another way ... it's... a lot of pressure all the time ... you can't really get out of it" (I3). However, one student described the relationship as negative as she believed her high previous achievement resulted in decreased parental pressure: "maybe they saw when I was younger and stuff that I never really needed any push" (I2). For this student, the relationship was reciprocal in that she believed her low controlling motivation contributed to her high achievement: "if somebody else was pressuring me ... my marks would not be good" (I2). C2 also believed that high controlling motivation hindered achievement by making it more difficult to obtain high grades, but for her the relationship was unidirectional. The level of students' controlling motivation and achievement did not appear to affect the direction or reciprocity of the relationships they described, suggesting that broader societal factors may especially contribute to this relationship.

Controlling motivation and academic dedication. Half of the students experienced a relationship between their controlling motivation and dedication while the remainder did not discuss this relationship (I3, I4, A1, A4), perceived a conceptual relationship only (C3), or experienced no relationship (I1) at all. Specifically, I1 believed no relationship exists because pressure from other students to choose a degree program does not influence her to become any more or less dedicated toward any specific program or toward university in general; however, I1 was the only student to be classified as low in controlling motivation suggesting that she may not experience sufficient external pressure for it to impact her dedication.

Indeed, those with the highest controlling motivation relative to other motivation types described a positive, unidirectional relationship such that controlling motivation in the form of parental or societal pressure is related to increased dedication to complete one's degree (A2, A2, C1, C2, C4). No students discussed the effect of low or reduced controlling motivation on dedication suggesting that the relationship may be purely facilitating; that is, controlling motivation appears to increase dedication while a lack of controlling motivation has no effect. Interestingly, parental pressure appears to have the greatest impact on dedication as compared to perceived pressure from peers, parents of peers, or society in general. This may further explain why I1 did not experience the facilitating relationship as she experienced pressure from peers in the complete absence of parental pressure. Furthermore, although moderate controlling motivation affects one's dedication to ultimately obtain a degree, it appears unrelated to one's dedication toward a specific degree program (C4, A2) or to immediate degree completion (I2). The only exception was A2 who experienced moderate pressure to become a doctor but no pressure to become a nurse and appeared equally as dedicated to becoming a doctor or a nurse.

Those with high controlling motivation did not discuss these qualifiers, suggesting that they may experience more universal dedication toward all academic activities (C1, C2).

For I2 and A2, this relationship was reciprocal in that high dedication to attend a professional college, resulting from strong social pressure, increased their internal pressure to do better than others in order to be accepted. A3 also endorsed this relationship and experienced high dedication toward a competitive profession which enhanced his internal controlling motivation; but, for A3 this relationship was unidirectional. The reciprocal relationship experienced by I2 and A2 appears to be mediated by autonomous motivation. Specifically, pressure from parents or society appears to enhance dedication in most cases but this dedication may only reciprocally enhance controlling motivation when students internalize the social pressures, thus experiencing self-regulated autonomous motivation rather than pure controlling motivation. Similarly, C3 described high controlling motivation to obtain a degree as conceptually similar to high dedication: “I feel pressure from my parents to finish it ... it’s just something I have to do to ... I need a university degree” (C3), both of which also appear to reflect high self-regulated autonomous motivation.

Controlling motivation and well-being. While only two students (A4, C4) did not discuss a controlling motivation-well-being relationship, nine (all but C3) agreed on a negative relationship from controlling motivation to well-being and two discussed a relationship from well-being to controlling motivation, one being negative (I1) and one being positive (C3). The majority of students believe that the absence of controlling motivation promotes positive well-being (I1, I2, I3, A2, A3, C1; e.g. “this year has been incredibly liberating academically and personally, because I’ve been making my own choices - I’m not going to go be a teacher like

everyone expected me to be” A3) and the presence of controlling motivation hinders well-being (I1, I2, I3, A1, A2, A3, C2, C3; “the more people that I have pushing toward that ... it would make me more stressed out and whatnot rather than like excited to be working towards it” A2). This relationship appeared robust whether the controlling motivation originated from social pressure (I1, A2, A3, C2), parental pressure (I2, A3, C1, C2), peer pressure (I2, I3), pressure from others in one’s life (I2, A2), or feeling forced to enroll in a course (A1, C2). In addition, high internal pressure to do well is also related to decreased well-being, especially when one does not do subjectively well (I2, I3).

This relationship may be mediated by several factors. First, the negative effects of controlling motivation on well-being appear to be reduced if high mastery goals are obtained (I1). The negative effects of controlling motivation on well-being may also be reduced if students believe that the pressure extends to all students and is not on him or her personally: “everybody in my degree has to ... so I just make the best of it” (A2). The relationship may also be moderated by autonomy satisfaction such that the absence of controlling motivation leads to increased autonomy satisfaction which directly promotes well-being (A2). However, this may be an artefact of the conceptual similarity between high autonomy satisfaction and low controlling motivation (to be discussed shortly) rather than a true moderating effect. Interestingly, the expectation that controlling motivation will reduce one’s well-being may cause one to become autonomously motivated as a way of avoiding poor well-being. That is, in an attempt to avoid negative well-being, students may embrace the parental or societal pressures that contribute to their controlling motivation which ultimately shifts their motivation from controlling to autonomous. For example, a student who experiences parental pressure to obtain high marks in

high school may experience poor well-being such as stress and worry. If this student continues to experience parental pressure in university, her wellbeing may further decrease. However, if this student adopts her parents' believe that marks are important, she may become autonomously motivated while in university resulting in improved well-being.

I1 was the only student to discuss a reciprocal relationship between controlling motivation and well-being. For this student, low parental pressure contributed to high well-being which further reduced her controlling motivation by reducing her perceived societal pressure. That is, although societal expectations are still present, she does not allow them to pressure her because of her own positive attitude and belief that she is “a good person” (I1). I1 was the only student to be classified as high in well-being, suggesting that well-being only reduces controlling motivation when it is very positive. Indeed, C3 who was classified as moderate in well-being and controlling motivation experienced a positive relationship between the two constructs such that his desire for future well-being is related to internalized pressure to obtain a university degree: “I need a university degree ... to enjoy the lifestyle that I have previously” (C3).

SDT needs and motivation types. The relationships between psychological needs (autonomy and competence satisfaction) and motivation types (intrinsic, autonomous, and controlling motivation) were also coded and analyzed. The majority of students supported a contextual relationship between intrinsic and autonomous motivation as well as between intrinsic and controlling motivation suggesting that these motivation types may often exist in the same context without necessarily influencing each other. In addition, controlling motivation was believed to negatively affect intrinsic motivation and autonomous and intrinsic motivation were positively, reciprocally related. Most students believed controlling motivation influenced

autonomous motivation but disagreed on whether this relationship was positive or negative. The relationship between competence and autonomy satisfaction was only mentioned by three students, all of whom described it as positive but disagreed on the direction.

The positive effect of autonomy satisfaction on intrinsic motivation was supported by nearly all students but its relationship with autonomous motivation appeared more complex and reciprocal. The conceptual similarity between the presence of autonomy satisfaction and absence of controlling motivation was also identified by nearly all students who also perceived a negative relationship between the two constructs. Competence satisfaction appeared to have a positive, reciprocal relationship with intrinsic and autonomous motivation but there was little consensus regarding its relationship with controlling motivation. These relationships are depicted in figure

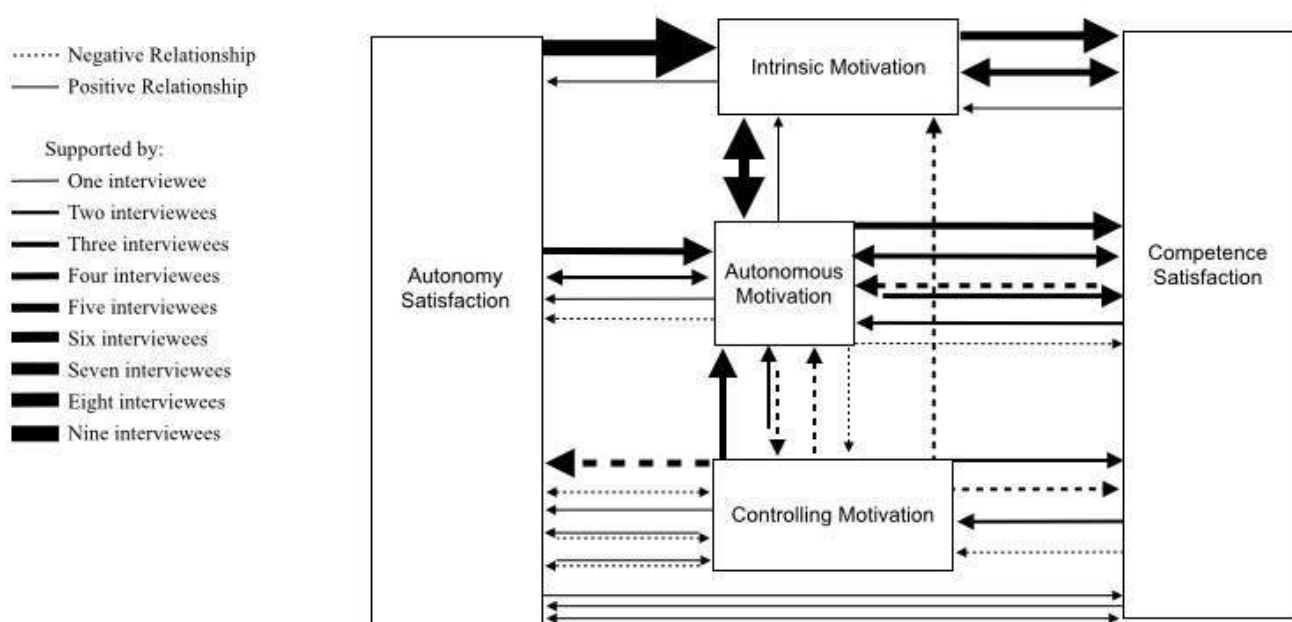


Figure 5-7. Graphic representation of relationships between psychological needs and motivation types as experienced by all interviewees. Thickness of line represents the number of interviewees who supported this relationship. Reciprocal relationships are represented by double-headed arrows; contextual relationships and conceptual similarity are not shown.

5-7 and discussed below.

Intrinsic and autonomous motivation. Eight students (I1, I2, I3, I4, A3, A4, C1, C3) discussed a contextual relationship between intrinsic and autonomous motivation and six (I3, I4, A2, A3, C2, C4) supported a positive, reciprocal relationship. I4, A3, and C4 also identified conceptual similarity, C1 supported a positive unidirectional relationship, and A1 did not discuss an intrinsic-autonomous motivation relationship. The conceptual similarity identified was such that students appeared autonomously motivated to find something in which they were intrinsically motivated; that is, intrinsic motivation is seen as something that is important to have: “having a great time ... is important ... [I] have emotion and drive and passion and that’s really important” (A3). This notion of being autonomously motivated toward intrinsic motivation blurs the distinction between these two constructs which complicates the interpretation of causal relationships.

The contextual relationship was such that both intrinsic and autonomous motivation tend to simultaneously exist within individuals with no evidence to suggest that they influence each other (I1, I2, I3, I4, A3, A4, C1, C3; e.g. “it’s enjoyable and I know that it’ll be beneficial ... I wouldn’t be in the schooling that I am if I didn’t enjoy it, but I also wouldn’t be taking it if I didn’t think that it was important” I3). For these students, fluctuations in intrinsic motivation do not appear to affect autonomous motivation and vice versa. Specifically, decreased intrinsic motivation does not affect autonomous motivation (e.g. I1 is autonomously motivated to learn content and enjoys doing so but feels she would be autonomously motivated even if she did not enjoy it) and decreased autonomous motivation does not affect intrinsic motivation (e.g. “I enjoy art ... even if I didn’t think it was going to be a career, it was just something for more like my

personal interest” C1). Possessing combined intrinsic and autonomous motivation may lead to especially positive outcomes.

Despite this contextual relationship and conceptual similarity, six students agreed on a positive, reciprocal relationship between autonomous and intrinsic motivation while another supported one direction of this relationship. Specifically, I3, I4, A2, A3, C1, C2 and C4 all believed that low autonomous motivation (e.g. feeling as though course content is irrelevant to one’s everyday life and unrelated to one’s future career) would cause low intrinsic motivation (e.g. lack of interest in course and no enjoyment in learning) and/or that high autonomous motivation would cause high intrinsic motivation. Similarly, a sudden drop in autonomous motivation causes one to “re-evaluate” how interested they are in the course content (C4).

The inverse of this relationship was also supported such that increased intrinsic motivation in a course (e.g. enjoyment and interest in the course) causes increased autonomous motivation to engage with the course (e.g. willingness to do homework; I3, A2, C2, C4): “if I enjoy the class ... I would like to spend more time on it” (A2); “the more enjoying it is for me, it makes me want to work harder” (I3). Furthermore, the desire for future intrinsic motivation such as obtaining a job one enjoys (I3) or enrolling in upper year courses with more interesting content (A3) causes increased autonomous motivation toward one’s current courses despite a current lack of intrinsic motivation; that is, the believe that acceptance into one’s chosen program or career will allow future intrinsic motivation causes one to be autonomously motivated. In addition, intrinsic motivation to be on campus (e.g. “I enjoy being at university” A3) is related to increased autonomous motivation to continue university despite low intrinsic motivation toward specific courses (e.g. “even if I don’t like it, I’ll go” A3): “I think that’s a big reason why I feel

motivated to come and succeed, because I enjoy it” (A3).

Similarly, decreased intrinsic motivation causes decreased autonomous motivation (A2, I4, C4): “it’s going to be harder to ... apply myself ... if I don’t enjoy something, ... if I don’t enjoy it ... I find that it is harder to motivate myself to do the homework and the studying” (A2). However, autonomous motivation may be maintained in the absence of intrinsic motivation if one is highly dedicated to specific end goals and perceives his or her current activities for which they lack interest as a “means to an end” (I4). The effect of increased intrinsic motivation on autonomous motivation may be mediated by competence satisfaction or goal attainment: “if, in the same semester, I’m taking classes that I struggle with ... I probably have to spend more time on those classes than the ones that I enjoy” (A2); “[if] I really am interested in [a course]... I would probably put a lot more time into that course, just because I feel like I could get a higher mark, just because I understand the stuff ... and I find it enjoyable to study” (I3). This relationship does not appear to be influenced by students’ level of autonomous or intrinsic motivation

Intrinsic and controlling motivation. Nine students (I3, I4, A1, A2, A3, C1, C2, C3, C4) discussed a contextual relationship between intrinsic and controlling motivation while two (I2, C1) perceived a negative, unidirectional relationship. The remainder (I1, A4) did not discuss this relationship. Regarding the negative, unidirectional relationship, I2 believed that controlling motivation would cause her to be less intrinsically motivated (e.g. “if I was pressured to do something, if I was forced to take anything ... I wouldn’t enjoy it as much”) and attributed her current intrinsic motivation to a lack of controlling motivation. C1 also believed that lack of controlling motivation results in increased intrinsic motivation: “if I was doing something ... that

I didn't feel pressured to be into... and I felt more like it was my decision or I was just doing it for myself, then I would probably be more interested". As demonstrated in each of these quotes, autonomy satisfaction appears to mediate this relationship such that controlling motivation hinders autonomy satisfaction which directly affects intrinsic motivation.

There appears to be a lack of consensus regarding whether or not intrinsic and controlling motivation can be held concurrently in the same context. For example, students tended to juxtapose possessing a high paying career with doing something that they love without acknowledging the possibility of having both simultaneously (i.e. obtaining a job one loves that also has high external rewards, I4). Similarly, A1 and C2 implied that all first year requirements are unenjoyable because they are required courses and did not acknowledge the possibility of enjoying a required class, suggesting that intrinsic and controlling motivation are not expected to co-exist. Others experienced high intrinsic motivation in the absence of controlling motivation (I3, A2; e.g. "I do it because I enjoy it and not because anybody's telling me that I have to" I3) but did not provide evidence that these constructs influenced each other. Contrarily, some students (A3, C1, C3) report the independent coexistence of intrinsic and controlling motivation such that they enjoy university but also attend because they feel they have to. Indeed, it is certainly possible to experience parental pressure toward something that one already enjoys doing. Therefore, although students do not expect intrinsic and controlling motivation to co-exist, this may indeed be the case in some instances.

In some cases, controlling motivation in the form of peer pressure (i.e. engaging in academic activities because one's friends do) leads to intrinsic motivation in an area one may have otherwise never pursued (I4, C4). Thus, controlling motivation does not necessarily *cause*

intrinsic motivation, but it may ultimately lead to intrinsic motivation in certain contexts. It appears prominent motivation types can be fluid and a shift from controlling to intrinsic motivation is viewed positively by students. For example, I4 was originally motivated toward university by the possibility of a reward (i.e. high income, controlling motivation) but now claims to be more motivated by "love" for what he is doing (i.e. intrinsic motivation) and refers to this transition as “maturing” and “changing for the better”. Indeed, intrinsic motivation may have a more positive effect on academic outcomes than controlling motivation (I4, A1, A3, C4) and may even mediate the negative effects of controlling motivation on well-being: “I have to go to school, and I like it, so it’s not that bad” (A3). This relationship did not appear to be dependent on students’ levels of controlling or intrinsic motivation.

Controlling and autonomous motivation. Five students discussed conceptual similarity (I2, I3, A2, C1, C3) between controlling and autonomous motivation while four discussed a contextual relationship (I2, I3, I4, A3) and three did not discuss this relationship (I1, A4, C2). Six students also discussed a unidirectional relationship (I4, A1, A3, C1, C3, C4) but disagreed on its directionality and valence. Two others (I2, A2) supported a reciprocal relationship. As previously discussed, highly self-regulated autonomous motivation may be experienced as controlling motivation by students, thus causing conceptual similarity between the constructs (I2, A2, C1, C3): “I have to like make that choice myself” (C1); “I pressure myself a lot” (I2); “pushing myself to do the best that I can do” (A2). Controlling and autonomous motivation types are especially intertwined when students adopt the external societal views (e.g. “negative prejudice [toward people who don’t pursue secondary education], which I support as well” I2) that cause them to feel pressured thus allowing the pressure and guilt to come internally as well

as externally (I2, I4, A3, C3): “[the pressure comes from] myself and wanting to do well and for my family ... it’s just something I have to do to make my parents proud take advantage of the opportunity that I’ve been given” (C3).

Furthermore, not experiencing controlling motivation (i.e. no pressure from others) is conceptually similar to autonomous motivation (i.e. doing it for one’s self) and the two are often directly juxtapose with each other: “I don’t really feel like there’s any external pressures that makes me do it, I think I just do it for myself” (I3); “I’m motivated because it’s what I want to do, not what other people want me to do ... I guess other people might agree with what I want to do” (A2). However, as demonstrated in the previous quote, students may experience both controlling and autonomous motivation simultaneously but choose to attribute their attendance to autonomous motivation. That is, students may state that they attend university because they want to while simultaneously acknowledging that others also want them to attend (I2, A2): “my parents think it’s important that I do well ...but I think it’s more of me pushing myself, it’s always been more of me pushing myself” (I2). Similarly, students may be highly autonomously motivated to attend while simultaneously feeling guilty regarding the cost of tuition despite no pressures from others (I3, A3). Therefore, it appears controlling and autonomous motivation can co-exist within the same contexts without influencing each other.

However, for some students, the coexistence of controlling and autonomous motivation may eventually lead to pure autonomous motivation with the perception that past external pressures caused one’s current autonomous motivation. That is, I2, A2, A3, C3, and C4 all believed that pressure from parents or society to value education and complete a university degree has lead to their internalization of this belief which contributed to their autonomous

motivation toward completing a university degree: “these habits have been pushed into me through elementary school ... keeping up these habits is really important to me” (I2). Similarly, controlling motivation in the form of guilt over cost of tuition and fear of self-blame for doing poorly can also increase autonomous motivation to attend courses (A2, A3): “I’m paying for my classes ... if I fail it’s my own fault, I can’t blame anyone else if I don’t show up ... but there’s consequences to your actions, so you do learn to be independent” (A3). Although high controlling motivation is not necessarily necessary to obtain autonomous motivation, it does increase pre-existing autonomous motivation albeit at the expense of intrinsic motivation and well-being:

“I put so much pressure on myself, seriously, I think I’m the only one in the world who puts pressure on myself, like my parents don’t pressure me and my boyfriend doesn’t pressure me, my friends don’t pressure me, so if somebody else was pressuring me too, I think that I’d be going so crazy ... I’d be trying so much harder and then I just wouldn’t be liking it as much” (I2)

For two students (I2, A2), the facilitating effect of controlling motivation on autonomous motivation was part of a negative, reciprocal relationship in that their autonomous motivation, caused by previous controlling motivation, hindered the development of future controlling motivation. That is, high autonomous motivation toward a specific program can lead to reduced controlling motivation toward other programs: “I’m not afraid to really stand up for what I believe if my parents are telling me ‘you should go into medicine’ ... I’m changing it now so that I’m more okay to go into nursing ... I would be fine being a nurse too” (A2). The presence of high autonomous motivation may also reduce perceived controlling motivation: “other people

[think] it's important that I do well, but I think it's more of me pushing myself, it's always been more of me pushing myself than anybody else pushing me" (I2). I3 also endorsed the notion that high autonomous motivation lowers perceived controlling motivation despite the presence of expectations from others', although for him the relationship was unidirectional only: "I think they know that I want to do well so ... it's just kind of expected of me but I don't really think that I feel pressured to do it, I kind of do it more for myself more than for anybody else" (I3).

Finally, two students contradicted all others by endorsing a negative, unidirectional relationship from controlling to autonomous motivation such that lack of social pressures allows them to feel purely autonomously motivated (A1, C1) while parental pressure reduces autonomous motivation (C1): "when I would come home from school, my parents were like 'do your homework, go do your homework' and I think in a sense that kind of made me feel like 'no, I'm not going to do it, you're telling me to do it so I don't want to'" (C1). Interestingly, C1 was the only student to experience high controlling motivation and low autonomous motivation, suggesting that students' pre-existing levels of motivation may influence the effects of these motivational types on each other.

Intrinsic motivation and autonomy satisfaction. All but two students (A4, C4) discussed a relationship between intrinsic motivation and autonomy satisfaction. Nine (I2, I3, I4, A1, A2, A3, C1, C2, C3) supported the positive, unidirectional relationship proposed by SDT wherein increased autonomy satisfaction causes increased intrinsic motivation. Specifically, when students take courses that they did not autonomously choose (e.g. required courses, courses suggested by friends or family, etc.), they reported experiencing less intrinsic motivation (I2, A1, A3, C2): "if I was pressured ... I wouldn't like it as much" (I2). Contrarily, when one's

autonomy is satisfied by having the freedom to choose their own courses, he or she becomes more intrinsically motivated as a direct result of choosing courses in which he or she is interested (I2, I3, I4, A2, C1, C4): “if I was taking something ... different that I didn’t feel pressured to be into... and I felt more like it was my decision or I was just doing it for myself, then I would probably be more interested in it” (C1).

Similarly, feeling free to be one’s self on campus and make one’s own choices also enhances intrinsic motivation (I3, I4, A3): “the more freedom I have around the university, the more enjoyment I have in the courses” (I3). However, the effect of autonomy to be one’s self on intrinsic motivation may be weaker than the effect of autonomy to choose one’s courses. For example, C2 experiences more intrinsic motivation toward a program that she chose to enrol in despite not feeling free to be herself (e.g. business) than toward a program she did not choose to enrol in but felt free to be herself (e.g. mechanics):

“my GPA was too low so I got kicked out of [college] my first year and I went into the trades and after doing the trades, I realized that the degree is really what I want so that’s when I started working more towards it... [but] I found that in that trade I could be myself more than in business, but I enjoyed the business more - I’m just such an outgoing, not sit around and do paperwork kind of person and everybody in business is sit down and get it done”

Thus, it appears autonomy to be one’s self is not always necessary for one to be intrinsically motivated while autonomy to choose one’s courses may be a more consistent factor.

For A2, the effect of autonomy satisfaction on intrinsic motivation was independent of competence satisfaction as the ability to choose courses enhanced her intrinsic motivation

regardless of resulting competence satisfaction: “I choose what I’m interested in I don’t necessarily take the easy route” (A2). Only one student (I1) supported the inverse of this unidirectional relationship as she believed that her high intrinsic motivation (e.g. enjoyment of courses) enhanced her perceived freedom and comfort on campus, thus satisfying her need for autonomy. This relationship did not appear to be affected by students’ level of intrinsic motivation or autonomy satisfaction.

Intrinsic motivation and competence satisfaction. Five students (I1, I4, C2, C3, C4) supported a positive, unidirectional relationship from intrinsic motivation to competence satisfaction; four others (I2, I3, A2, A3) also supported this relationship but believed it to be reciprocal and one (C1) supported the inverse relationship (competence satisfaction to intrinsic motivation) only. The remaining two students (A1, A4) did not discuss this relationship.

Three quarters of students believed that high intrinsic motivation causes increased competence satisfaction. For some students, the effect was an inherent result of intrinsic motivation as they simply felt more competent in courses they were interested in (C2, C3, C4) or felt competent within university in general as a result of overall enjoyment: “[I] have emotion and drive and passion and that’s really important’ so I always feel really confident and competent” A3). Others believed the relationship was mediated by autonomous motivation (I2, I3, I4) or mastery goals (I3, I4, A2) as students choose to engage more in the courses they enjoy which results in greater understanding of the material (i.e. obtainment of mastery goal) and enhanced feelings of confidence in the course: “if something is interesting, then you can understand it more and therefore you’ll be competent” (I2); “[the class] I found really interesting is my highest mark in university ... I expected more from myself because I actually enjoyed

reading the material ... if I enjoy something then I understand it better and I feel like I can do better in the classes” (A2). However, it was not always clear whether autonomous motivation resulting from interest in the course improved competence satisfaction or whether competence satisfaction as a result of interest in the course improved autonomous motivation: “a course that I really am interested in ... I would probably put a lot more time into that course, just because I feel like I could get a higher mark just because ... I find it enjoyable to study ... the more I enjoy classes and the more I go to them and the more I succeed at them, the more confident I feel going forward” (I3).

Some students felt this relationship was facilitating as low intrinsic motivation did not hinder their competence satisfaction; these students still feel capable of learning when uninterested but knew they would need to invest more effort to do so (I1, I4). Others felt course content “wouldn’t come as easily” (I2) within courses they were uninterested in, suggesting that lack of intrinsic motivation hinders competence satisfaction. Interestingly, decreased intrinsic motivation may not hinder one’s *objective* competence in a course but may instead increase the *subjective* level of competence needed for one to feel satisfied. That is, students may still feel capable of succeeding in courses in which they are uninterested but may require greater success within these courses to feel competent compared to courses that they enjoy (I1, A3): “if you don’t enjoy it, it’s hard to feel confident about something ... I don’t think I would be as confident if I didn’t enjoy it ... it impedes your competence ... it makes it harder to succeed because if you don’t enjoy it ... you don’t feel like you are succeeding” (A3). This occurs even when one’s objective competence is high: “if I’m good at something and I don’t find ... joy in it, I’m not going to feel like I’m succeeding because I’m frustrated” (A3). This aspect of the relationship

also appeared to be mediated by mastery goals (e.g. “I just find it a lot harder to understand the material if I’m not interested in it” I3) as low intrinsic motivation may not hinder competence satisfaction if students also obtain mastery goals (I4).

The inverse of this relationship was also supported by five students such that competence satisfaction increases intrinsic motivation (e.g. “I enjoy art because I feel that I’m good at it” C1; “the easier it is to understand it, the more enjoying it is for me” A3; “I like being in school partly because I excel at it and it gives me confidence” I2) and absence of competence satisfaction decreases intrinsic motivation (e.g. “if I don’t feel like I’m going to do very good at the class then I’m probably not going to enjoy it” A2; “if you don’t understand something ... it’s hard to get interested in it” I2). However, this relationship appears to be mediated by achievement such that if one feels competent in a course but does not earn grades to reflect this, intrinsic motivation is lowered: “if I thought I was good at it but I wasn’t getting good grades in the class, then I would probably not enjoy it as much ... it would frustrate me” (C1). Additional factors may also affect this relationship as it appears to only exist under certain conditions: “if I am confident ... I will enjoy it, but it depends what it is - just because I have confidence that I can do well in the course doesn’t ... necessarily means I’m going to enjoy it” (I3). Interestingly, this relationship appears to exist within academia but not within the workplace: “I may be really good at like a job ... but I’m not going to feel motivated to go and do it even if I’m doing well if I hate it” (A3). Although competence satisfaction further enhances intrinsic motivation, students suggested that this reciprocal relationship must first be initiated by intrinsic motivation: “you have to start from the liking it and then go to the competence first” (I2).

Although there is strong evidence that the intrinsic-competence relationship is reciprocal

(“I feel like it’s cyclical for sure ... I feel like it for surely goes both ways” I2), two students (I3, A2) also identified a contextual relationship between intrinsic motivation and competence satisfaction suggesting that the perceived reciprocal relationship may only exist under certain circumstances. For example, it is possible for low competence satisfaction and high intrinsic motivation to co-exist within the same course (e.g. “I enjoyed [physics] in high school but I struggled with it”; “it’s a lot of work and it’s not an easy class but ... I really enjoy that class” A2) and for low intrinsic motivation and high competence satisfaction to co-exist (e.g. “I still did good in most of the classes even if I didn’t enjoy them” A2). Therefore, it appears intrinsic motivation and competence satisfaction often covary but may not necessarily influence each other.

Autonomous motivation and autonomy satisfaction. Half of the students supported a positive relationship from autonomy satisfaction to autonomous motivation; for four of them (A1, A2, A3, C4) this relationship was unidirectional while two others (I1, C1) believed it to be reciprocal such that autonomous motivation also positively influenced autonomy satisfaction. I2 also supported the effect of autonomous motivation on autonomy satisfaction but believed it to be unidirectional and, contrary to all other students, I4 perceived a negative, unidirectional relationship between autonomous motivation and autonomy satisfaction. Three students (I3, A2, C1) also perceived conceptual similarity, two (A4, C3) did not discuss this relationship, and C2 perceived no relationship.

The distinction between autonomy to choose how to engage with university and autonomy to be one’s self was evident once again as autonomy when engaging in courses appeared to be more closely related to autonomous motivation than autonomy to be one’s self.

For example, C2 does not believe that her strong autonomous motivation to attend university is related to her current lack of autonomy to be herself in her courses; nor does she believe her current lack of autonomy to be herself is related to future autonomous motivation toward university in general. Contrarily, A3 believed that feeling free to be his self on campus increased his autonomous motivation: “as I got my personal life sorted out ... coming out [as transgender] ... suddenly everything was better and I was more motivated ... everything just sort of clicked and now I’m way more motivated to go to school ... when you get your personal life sorted out” (A3). Thus, the relationship between autonomy to be one’s self and autonomous motivation was inconsistent between students while the relationship between autonomy to choose how to engage in courses and autonomous motivation was considerably more consistent. That is, six students described autonomy satisfaction when engaging in courses as having a causal impact on autonomous motivation such that high autonomy satisfaction allows for autonomous motivation (I1, A1, A2, A3, C1, C4): “if I didn’t feel free and comfortable here, I wouldn’t be motivated to be here” (I1). Thus, the ability to make personal choices regarding one’s academic activities increases one’s autonomous motivation toward university: “I’m motivated because it’s what I want to do ... the reason why I study and do all my homework ... it is motivated by my freedom of choice ... I’m doing it because I want to do it” (A2). Furthermore, the desire to maintain autonomy satisfaction in the future (i.e. have the option to attend university) is related to increased autonomous motivation toward engaging in academic activities (C1). Finally, having the freedom *to not* engage in academic activities may further increase autonomous motivation *to* engage in academic activities in the future because of the negative consequences of having not engaged: “if you don’t go to class and you don’t study, you suffer ... the choices that you make

have consequence ... you learn to be independent and to rely on yourself, and to make yourself do things” (A3).

I1 and C1 believed this relationship was reciprocal such that autonomous motivation in the absence of controlling motivation (e.g. “I have to make that choice myself” C1) allows one to experience autonomy satisfaction (e.g. “I can freely choose to go”; “it’s my choice” C1).

Similarly, autonomous motivation to be on campus is related to enhanced autonomy satisfaction while on campus because one becomes more experienced with the facility (I1). High autonomous motivation to study and do well at school may even promote autonomy satisfaction when choices are limited. For example, I2 is forced to stay long hours on campus due to a commute beyond her control but, because of her high autonomous motivation, she chooses to study on campus which satisfies her need for autonomy despite the limited choices available.

As hinted above, the consistency of this positive, reciprocal relationship is perhaps not surprising given the close conceptual similarity between autonomy satisfaction and autonomous motivation. The conceptual similarity was such that if students have high autonomy satisfaction (e.g. many choices, freedom to choose certain courses, comfort engaging with activities as they choose, etc.), they will choose the courses for which they are autonomously motivated (e.g. what they want to do, what they think is beneficial, etc.) and thus there is not always a clear distinction between these constructs in students’ discussion (I3, A2, C1). Similarly, in order to be autonomously motivated, students must autonomously choose to engage in courses and thus the distinction between autonomy satisfaction and autonomous motivation is blurred. Finally, I4 was the only student to discuss a negative relationship such that autonomy satisfaction is hindered by extreme autonomous self-regulation as he does not feel free even though he is the one forcing

himself to engage in academic activities. I4 was also the only student who discussed the autonomy satisfaction-autonomous motivation relationship who experienced low autonomy satisfaction which may explain why he did not perceive the positive relationship experienced by others. However, most students who did experience a positive relationship also had higher autonomous motivation than I4 suggesting that the quality of I4's autonomous motivation is not what caused it to negatively affect autonomy satisfaction in this case.

Autonomous motivation and competence satisfaction. Six students experienced a unidirectional relationship (I1, I3, I4, A1, C1, C3) between autonomous motivation and competence satisfaction while five others experienced a reciprocal relationship (I2, A4, A1, A2, C4). However, students did not agree on the direction or valence of this relationship. One student (A1) also discussed conceptual similarity as she viewed competence satisfaction and autonomous motivation to attend university as "the same", perhaps suggesting that her motivation for autonomously attending university is entirely to satisfy her need for competence. The remaining student (C2) believed no relationship existed because she attends all classes regardless of competence satisfaction.

Three quarters of students believed that high autonomous motivation to enrol in university and engage with courses resulted in increased competence satisfaction (I1, I2, I4, A1, A2, A4, C1, C3, C4): "once I can set my mind to something, I feel like I can accomplish much more" (C1); "I think I'm able to do well if I apply myself" (A3). Similarly, low autonomous motivation is expected to reduce competence satisfaction: "I don't think I could do as well in the class if I didn't go to class and actually attend the lectures" (A3). This relationship appears to be mediated by obtainment of mastery goals as autonomously engaging in academic activities (e.g.

“trying to figure it out” I1; “work on the problems” C4) helps one to better understand the material which leads to greater competence and confidence in the course. In addition, it appears as though the more importance one attributes to academic activities (i.e. the more autonomously motivated they are), the greater their need for competence satisfaction within that activity (A4, C4) which may further increase their ultimate sense of competence satisfaction. Finally, this relationship may also be mediated by intrinsic motivation such that low autonomous motivation (e.g. “I didn’t think it was going to be a career ... just something for ... my personal interest” C1) is related to high competence satisfaction (“I’m good at it ... I always did my best” C1) when intrinsic motivation is high. C1 was the only student to report a negative relationship from autonomous motivation to competence satisfaction but was also the only student to experience low autonomous motivation.

I2, A4, A1, A2, and C4 all believed the aforementioned relationship was reciprocal but disagreed regarding whether the inverse relationship (i.e. competence satisfaction’s affect on autonomous motivation) was positive or negative. A4 supported a negative relationship, A1 and C4 supported a positive relationship, and I2 and A2 believed that the relationship could be either positive or negative within specific courses depending on one’s achievement and overall competence satisfaction. Specifically, A4 and A2 reported that low competence satisfaction in a class increases their autonomous motivation as they strive to improve and maintain future competence satisfaction: “if I’m really having trouble with it ... I work a lot harder so that I can like try and do better, just because I know that I am capable of it, I just have to ... work at a lot more” (A2). This may especially be the case when one has high overall competence satisfaction and believes that autonomous engagement will result in improved course-specific competence.

Similarly, I2 reported that high competence satisfaction decreases her autonomous motivation within specific courses: “I understood it all ... so I didn’t have to do a lot of studying for that” (I2), further supporting the negative relationship.

However, I2 also supported the positive effect of competence satisfaction on autonomous motivation by stating that high competence satisfaction increases autonomous motivation when one obtains information that contradicts this competence satisfaction (e.g. a low score): “if I was really really competent ... and then I got a bad score ... I think that that’d push me even harder to ... figure out [what] I did wrong and ... give me more of a motivation to like go at it ... [but] if I stayed in the positive mark, I would ... continue doing what I was doing ... a bad mark I think would influence me more” (I2). For others, the positive effect of high competence satisfaction on autonomous motivation was more universal (I3, A1, A2, A3, C4): “I think I have the ability to get good grades so I don’t see why I wouldn’t push myself to do that ... I just think that I’m competent so might as well do all that I can do” (A2); “ my confidence and my competency of what I think I can achieve really does motivate me, because if I felt like I couldn’t make it in film school, I definitely wouldn’t go” (A3); “based on how competent I am, I think that it makes me want to work harder” (I3). Similarly, decreased competence satisfaction can decrease autonomous motivation to attend class because one feels as though attending class does not lead to greater competence (A1). Therefore, for some, it is the belief that one’s competence will be satisfied that causes increased autonomous motivation (e.g. “I would probably put a lot more time into that course, just because I feel like I could get a higher mark” I3) and thus these students autonomously choose to attend based on whether or not they feel courses will meet their need for competence satisfaction (I3, I4, A1). This relationship does not appear to be mediated

by low achievement: “[if I] feel like I’m succeeding, [I] continue doing it - even if the mark is bad” (A3) but may be mediated by intrinsic motivation and mastery goal obtainment: “the easier, for me, the easier it is to understand it, the more enjoying it is for me, it makes me want to work harder” (I3).

Controlling motivation and autonomy satisfaction. The majority of students expressed conceptual similarity between controlling motivation and autonomy satisfaction (I2, I3, I4, A1, A2, A3, C1, C4) and half (I1, I2, I3, I4, C1, C4) discussed a negative effect of controlling motivation on autonomy satisfaction. A positive effect of controlling motivation on autonomy satisfaction was also expressed by two students (A2, A3) and both positive (I4) and negative (I3, A2) versions of the inverse relationship (i.e. the affect of autonomy satisfaction’s on controlling motivation) were discussed. Three students (C2, C3, A4) did not discuss this relationship.

The conceptual similarity was such that controlling motivation was often defined and articulated as the absence of autonomy satisfaction (“if I was like super pressured, like if the freedom wasn’t there for me” I2) while autonomy satisfaction was defined and articulated as the absence of controlling motivation (“I know that that’s my own choice, like I don’t have anyone telling me when I have to study... it’s all up to me” C1; “it’s what I want to do, not what other people want me to do” A2; “I just feel comfortable here, I don’t feel like I’m pressured into doing anything” I3). That is, strong controlling motivation to attend university inherently implies a lack of autonomy in whether or not to attend while high personal freedom implies a lack of social pressure; this conceptual similarity blurs the distinction between these constructs and complicates the evidence for causal relationships.

Despite this conceptual similarity, six students agreed that the absence of controlling

motivation causes enhanced autonomy satisfaction to be one's self (e.g. "it's easier to be around out here" I1) and to autonomously attend university and engage in courses: "[my parents can't] tell me to go to class, so I have to like make that choice myself ... I can freely choose to go" (C1); "since I don't feel forced by anybody... I'm doing it for what I want to do" (I3). Similarly, the presence of controlling motivation was believed to reduce autonomy satisfaction (I1, I2, I4, C4): "if I was forced to take anything else, I wouldn't feel as free" (I2). For I1, I2, C1, and C4 this negative relationship was unidirectional while I3 and I4 perceived it to be reciprocal. The inverse of this relationship (i.e. autonomy satisfaction's effect on controlling motivation) was less consensual as I4 supported a positive relationship while I3 believed it to be negative. That is, satisfying the need for autonomy (i.e. freely deciding how to spend one's time) reduced controlling motivation for I2 (e.g. "the more free time I have ... the less pressure I feel") but increased controlling motivation for I3 by causing feelings of guilt, especially when time pressures and high workloads were present. This suggests that the effect of autonomy satisfaction on future controlling motivation depends on how one chooses to make use of their autonomy (i.e. the specific decisions that one makes).

High autonomy satisfaction may also have a direct effect on the reduction of controlling motivation by influencing how social pressures are perceived. That is, students who experience especially high autonomy satisfaction may choose not to interpret societal pressures as controlling motivation: "I do have people telling me [to be a doctor] but I don't really listen to it ... I kind of make up my mind like what I want to do myself" (A2). However, A2 was the only student to express this form of the relationship suggesting that it only exists under certain conditions. A2 and A3 were also the only students to discuss a positive relationship wherein

controlling motivation enhances autonomy satisfaction. That is, A2 believed that engaging in an activity one feels socially pressured to do (i.e. taking a class others recommend) enhances autonomy satisfaction in the future if one determines there was no benefit of the previous controlling motivation (e.g. “I didn’t like it so I stopped taking classes that other people told me would be good classes” A2) and A3 believes that controlling motivation in the form of suggestions from others can lead to increased autonomy satisfaction if options are revealed that one had not previously considered and one feels free to choose these options.

Controlling motivation and competence satisfaction. Although six students discussed a unidirectional relationship between controlling motivation and competence satisfaction, there was little consensus regarding the direction of this relationship. In addition, four students (A3, A4, C3, C4) did not discuss this relationship, two (I1, C2) reported a contextual relationship only, and one (C1) identified conceptual similarity. That is, C1 experienced parental pressure to become more competent and thus could not articulate a clear distinction between controlling motivation and competence satisfaction. Furthermore, although low competence satisfaction co-exists with controlling motivation for I1 and C2, these students do not believe that the two constructs influence each other. For example, C2 failed a course she felt forced to take, demonstrating poor competence satisfaction in the context of controlling motivation; yet, her personal sense of competence appears unhindered as she maintains that she “will pass one time”.

Contrarily, I2 and I4 believed that controlling motivation in the form of external pressures to do well academically and outperform others resulted in their enhanced competence satisfaction, albeit mediated by autonomous motivation. That is, the desire to live up to parent (I4) and peer (I2) expectations causes these students to engage more in their courses which

results in greater perceptions of competence. However, I2 also believed that not experiencing controlling motivation is related to a more direct increase in competence satisfaction (e.g. “I don’t have a lot of social pressure ... therefore, I think that gives me more confidence to do well”). C1 also supported the other side of this negative, unidirectional relationship from controlling motivation to decreased competence satisfaction such that high parental pressure is believed to result in lowered competence satisfaction, especially when low achievement is obtained: “if I feel like I did well in the class but my parents think [I didn’t] then I feel like maybe I should have done better” (C1).

The inverse of this relationship - the effect of competence satisfaction on controlling motivation - was discussed by three students. One student perceived this relationship to be negative as low competence satisfaction was believed to be related to increased self-regulated controlling motivation: “classes where it doesn’t come as easy to me ... I have to try a lot harder” (C3). Contrarily, A2 and A3 believed that high previous competence satisfaction (i.e. in high school) was related to increased societal pressure to attend university and increased self-pressure to engage in courses and continue to obtain high marks:

“in high-school I got higher marks so it was always people asking me ‘where are you going to school next year?’, not ‘are you going to school next year?’ ... when people say ‘where are you going to school next year?’, it’s like if I were to say that I’m not, they’d be disappointed and shocked and be like ‘that’s not who she is...Why isn’t she going?’” (A1).

Therefore, it appears the relationship between controlling motivation and competence satisfaction may function differently between students, possibly dependent on factors such as previous academic achievement, the source of the external pressure, or autonomous motivation.

Autonomy and competence satisfaction. The autonomy-competence satisfaction relationship was only mentioned by three students. I2 described a positive, unidirectional relationship such that decreased autonomy satisfaction (e.g. “if my freedom wasn’t so good”) is expected to result in decreased competence satisfaction (“it wouldn’t come as easily to me”). Contrarily, C4 supported the inverse positive unidirectional relationship such that, for him, high general competence satisfaction increases his perceived autonomy to pursue different career paths. A2 supported both of these positive relationships, believing that autonomy and competence satisfaction are reciprocally related. That is, A2 believed high competence satisfaction causes increased autonomy satisfaction to choose one’s future career (“I think I am competent and have the ability to get a degree and do whatever I want as a career. I don’t think I’m limited in any way ... if I want to be a doctor or lawyer ... I could do it”) which promotes further competence satisfaction as she chooses to apply herself, attend courses, and do homework, within the courses she has autonomously selected.

This relationship may be mediated by autonomous motivation which is conceptually similar to autonomy satisfaction (see above) as well as by level of need satisfaction. That is, students may need to feel both competent and autonomous in order for the relationship between these two needs to be salient. Specifically, of the four students who experienced both high autonomy and competence satisfaction, three reported a relationship between the two while eight of the nine students who did not report a relationship had low or moderate satisfaction of at least one of the needs.

SDT constructs and achievement goals. The relationships between SDT (intrinsic, autonomous, and controlling motivation; autonomy and competence satisfaction) and AGT

(mastery-approach and performance-approach goals) constructs were also coded and analyzed. Mastery goals were both positively and negatively influenced by controlling motivation and autonomy satisfaction but consistently appeared to have positive, reciprocal relationships with competence satisfaction, intrinsic, and autonomous motivation. However, 67% of interviewees believed that mastery goals and autonomous motivation were conceptually similar which may partially account for the perceived relationship between these two constructs. Similarly, performance goals were thought to be conceptually similar to autonomous motivation (75% of interviewees), controlling motivation (42%), and competence satisfaction (42%). Nonetheless, performance goals were consistently found to have positive, reciprocal relationships with competence satisfaction and autonomous motivation but were influenced by autonomy satisfaction, intrinsic motivation, and controlling motivation. These relationships are depicted in Figure 5-8 and discussed below.

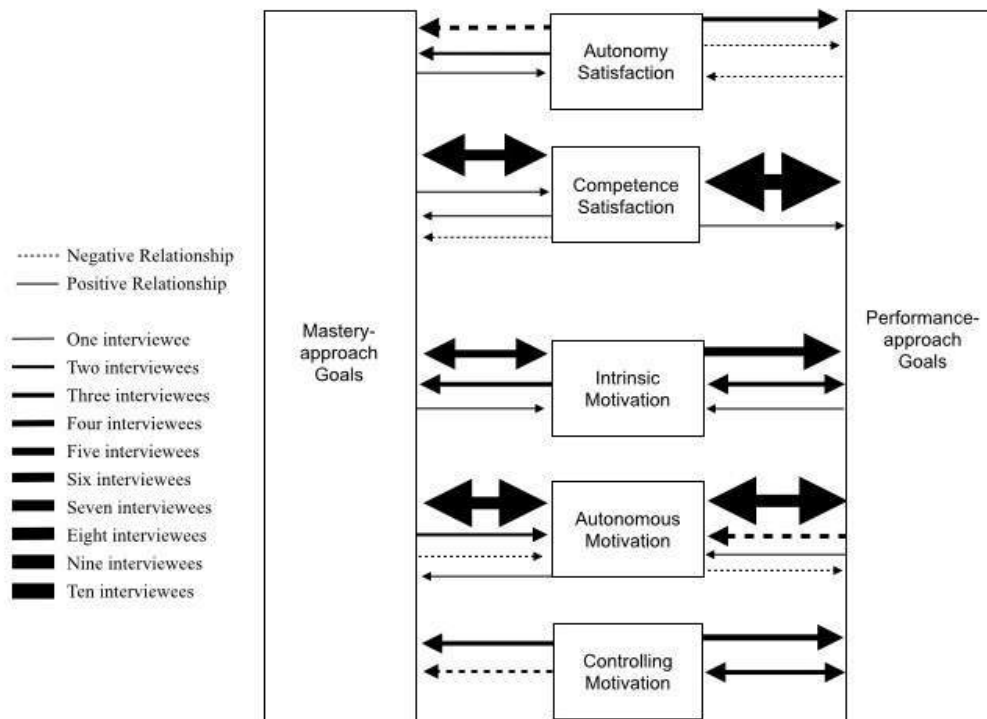


Figure 5-8. Graphic representation of relationships between AGT and SDT constructs as experienced by all interviewees. Thickness of line represents the number of interviewees who supported this relationship. Reciprocal relationships are represented by double-headed arrows; contextual relationships and conceptual similarity are not shown.

Intrinsic motivation and mastery goals. A reciprocal, positive relationship between intrinsic motivation and mastery goals was supported by five students (I2, I3, I4, A3, C4) and four others supported one direction of this positive relationship (A3, C1, C3 believed intrinsic motivation caused mastery goals; I1 believed mastery goals caused intrinsic motivation). Two students (A1, A4) did not discuss this relationship and two others (I1, C2) believed their intrinsic motivation did not affect the setting or obtainment of mastery goals. Specifically, I2 and C2 each stated that her interest and enjoyment in a course did not affect her desire to learn and understand the material.

This was contradicted by eight others (I2, I3, I4, A2, A3, C1, C3, C4) who believed that their intrinsic motivation caused them to set and obtain mastery goals: “if I enjoy something, then I understand it better” (A2); “that gives me interest, so I like learning about that ...if something is interesting, then you can understand it more” (I2); “because I find them interesting ... I just more want to retain this information” (C3). Similarly, absence of intrinsic motivation was related to not obtaining mastery goals (I2, I3, C1): “I just find it a lot harder to understand the material if I’m not interested in it” (I3). The effect of intrinsic motivation on one’s ability to obtain mastery goals appears to be mediated by autonomous motivation such that students are more likely to autonomously engage in courses that are interested in which leads to a better understanding of the information and mastery goal obtainment (I3, C1, C3): “because I like them more ... I probably just spend more time like studying and... trying to understand” (C3); if I was enjoying what I was learning and if I was interested I would probably be like all over the textbooks and all over the extra assignments, but ... I have such a lack of interest that, I’m ... not really like motivated ... towards understanding it” (C1).

Five students (I2, I3, I4, A3, C4) believed this relationship to be reciprocal such that setting and obtaining mastery goals increases intrinsic motivation and not obtaining mastery goals hinders intrinsic motivation: “if you don’t understand something it’s hard to get interested in it” (I2). I1 also endorsed this relationship but believed it to be unidirectional only. For some (I2, I4, A3, C4), this was because obtaining a mastery goal is in itself enjoyable (e.g. “I really enjoy learning”, “I just love learning”; “I like being here because I like learning” I2) while others (I1, I3, C4) stated that the desire to truly understand content causes a course to become more interesting (e.g. “it becomes more interesting ... the easier it is to understand it, the more enjoying it is for me” I3). Those who experienced high intrinsic motivation and high mastery goals were more likely to discuss a reciprocal relationship while those with low or moderate intrinsic motivation were more likely to support the unidirectional relationship in which intrinsic motivation affects mastery goals suggesting that level of intrinsic motivation affects the reciprocal nature of this relationship.

Intrinsic motivation and performance goals. The majority of students believed intrinsic motivation positively influenced performance goals but disagreed whether this relationship was unidirectional (I1, I4, A2, A3, C2, C3) or reciprocal (I2, I3, C1). Those who supported a reciprocal relationship perceived the inverse relationship to be positive. Another student (A4) also supported the positive effect of performance goals on intrinsic motivation but believed it to be unidirectional (A4). Finally, one student (C4) had no evidence for a relationship and one (A1) did not discuss this relationship. Although most students agreed that intrinsic motivation influenced the *types* of performance goals set and whether or not they were *obtained*, there was also evidence that intrinsic motivation has no effect on whether or not performance goals are set

(C4, C1). Indeed, it appears students choose to set performance goals regardless of their intrinsic motivation and increased intrinsic motivation may actually lead to less importance attributed to the obtainment of performance goals (e.g. “if you enjoy it, then it’s not just about the marks” A3) and more importance attributed to obtainment of mastery goals (A3, C1). However, this facet of the relationship was not as thoroughly discussed as the positive influence of intrinsic motivation on types of performance goals set and obtainment of performance goals suggesting that it may not be as robust or as salient among students.

Seven students supported a positive relationship from intrinsic motivation to the types of performance goals set and the obtainment of these performance goals. Specifically, intrinsic motivation facilitated the setting of performance goals (I1, A2, C1, C2, C3) because knowing one is more interested in a course causes one to believe that he or she should be able to obtain high marks and do better than others in the course: “I just want to do well at these courses because I find them interesting ... if I’m interested in it ... I have a higher grade expectation and feel I should do better in that class” (C3); “I expected more from myself because I actually enjoyed reading the material”; “if I enjoyed the class I could probably do better in it” (A2). Furthermore, low intrinsic motivation is related to setting low performance goals and high intrinsic motivation is related to setting higher performance goals: “my goals are probably lower because I feel uninterested” (C1); “in a course that I really am interested in ... I feel like I could get a higher mark, just because I understand the stuff and ... I find it enjoyable to study ... I’m [in] a course ... it’s kind of dry ... and I don’t think I would set the goal for myself ... to get as good of a mark in that one” (I3).

Being intrinsically motivated in a class also facilitates attainment of performance goals

by making it easier to engage in the course and learn the material (I2, I4, A2, C2): “I do enjoy some stuff more than other people, therefore I’m better at it than them” (I2); “because I enjoy it, it makes me more interested in the subject and makes it easier I guess to obtain that goal” (C3); “the one class that I took last semester that I found really interesting is my highest mark in university” (A2). Similarly, low intrinsic motivation is related to decreased obtainment of performance goals (A2, A3). This relationship is mediated by autonomous motivation, mastery goals, and competence satisfaction such that enjoyment of a course causes one to spend more time with it which causes one to obtain mastery goals and satisfy their need for competence, both of which lead to obtainment of performance goals; therefore, one chooses to set performance goals in courses they enjoy because he or she believes they are likely to be able to obtain these goals (I3, I4, A2, C3): “I find if you like the class more, then you strive to do better in it, you are more motivated to do the reading and the homework” (A2). Because of this mediation, low intrinsic motivation may not hinder performance goal attainment if students also set mastery goals and/or are autonomously motivated.

Three students (I2, I3, C1) believed this relationship to be reciprocal such that obtaining performance goals leads to additional increases in intrinsic motivation; a fourth student (A4) also supported this relationship but believed it to be unidirectional only. Specifically, doing better than others and demonstrating competence is in itself enjoyable: “I enjoy art because ... I get good grades in that course” (C1); “I enjoy - it gives me happiness to do well and like even to do better than other people ... I like being in school partly because I excel at it ... I enjoy it because I’m better than other people” (I2). Similarly, not obtaining performance goals is related to decreased intrinsic motivation: “[if] I wasn’t getting good grades ... then I probably would not

enjoy it as much” (C1). Therefore, forming performance goals promotes intrinsic motivation only if they are obtained and course content that allows one to demonstrate their competence (i.e. obtain performance goals) is also related to increased intrinsic motivation: “it becomes more interesting to me ... to be able to use it outside of class ... I really like the stuff ... you’re able to use in some sort of a way” (I3). Students’ level of intrinsic motivation and performance goals did not appear to affect this relationship.

Autonomous motivation and mastery goals. Eight students (I2, I3, I4, A1, A2, C1, C2, C4) supported a positive, reciprocal relationship between autonomous motivation and mastery goals and three others supported a positive, unidirectional relationship (A1 supported the relationship from autonomous motivation to mastery goals; A4 and C1 supported the relationship from mastery goals to autonomous motivation). However, eight of the students (I2, I3, I4, A1, A2, A3, A4, C1) also identified conceptual similarity which may at least partially account for the perception of a reciprocal relationship. The conceptual similarity was such that mastery goals are seen as important and are freely chosen, therefore students are autonomously motivated to obtain them: “it’s important to understand your material” (I2); “I know that it’ll be beneficial. Lots of the stuff that I learn I can use in the future” (I3); “it’s important...everyone should learn” (A3); “it makes me get a self purpose [if] I’ve actually learned something ... the goals that I set would definitely be important ... to learn more and gain value from going to school” (C3). As a result, there is often no clear distinction between these constructs in students’ discussions because a desire to learn and understand the material and the belief that university education is important are perceived to be virtually the same.

Despite this conceptual similarity, 10 students supported a positive, facilitating

relationship from setting and obtaining mastery goals to autonomous motivation. Specifically, the desire to achieve mastery goals (e.g. “to learn”; “to retain information”; understand the material “in depth”) causes one to be autonomously motivated towards academic activities that will lead to obtainment of these goals (e.g. attending classes, doing course work, etc.; I2, I4, A1, A2, A4, C1, C3, C4): “I had to do lots of practice questions ... so that I could figure out how to actually do it and I did that because ... I wanted to learn the material” (A2). Thus, autonomous motivation is directly influenced by having a goal such that setting a mastery goal causes one to become motivated to obtain it. The eventual attainment of mastery goals further increases autonomous motivation albeit mediated by intrinsic motivation: “the easier it is to understand it, the more enjoying it is for me, it makes me want to work harder” (I3, C3). However, one student believed that attainment of mastery goals is related to decreased autonomous motivation for that specific course (e.g. “because I understood it all ... I didn’t have to do a lot of studying” I2) suggesting that, although robust, the positive relationship may not exist in all contexts. Students did not discuss the effect of low mastery goals or not obtaining mastery goals on autonomous motivation suggesting that the effect of mastery goals on autonomous motivation may be purely facilitating.

Nine students (I1, I2, I3, I4, A1, A2, C1, C2, C4) also supported the inverse relationship such that autonomous motivation influenced the setting and obtainment of mastery goals. Specifically, autonomous motivation toward a future career, to get degree, or do well on an exam causes one to set mastery goals (I4, A1, C1): “if I found something and I was like ‘this is what I want to do for the rest of my life’ then I would be like ‘okay, I want to learn this, like I want to understand it’” (C1). Similarly, the belief that academic activities are important and that you

will benefit from knowing the information long-term (i.e. autonomous motivation) leads to an increased desire to learn information and understand how it “all ties together” (I2; I3, I4, C2, C4). Autonomous motivation to attend lectures, listen, and take notes is also related to the obtainment of mastery goals (I1, A2, C2, C4) as these activities aid learning: “I learn better if ... I’m listening to a lecture and I’m taking notes ... when I actually went to class and ... actively listened to what the prof was saying ... I felt like I understood the material better” (A2).

However, low autonomous motivation is not related to an absence of mastery goals, but merely causes one to set lower mastery goals: “I want to do the best that I can ... but I don’t think I would have my goal as high, just because it’s not a course that ... is as related to me” (I3).

Therefore, it appears that, regardless of students’ pre-existing levels of autonomous motivation or mastery goals, the mere presence of autonomous motivation causes students to set and obtain mastery goals which further increases their autonomous motivation.

Autonomous motivation and performance goals. Eight students (I2, I3, A1, A2, A3, C1, C3, C4) supported a positive, reciprocal relationship between autonomous motivation and performance goals and another (I4) supported one direction of this positive relationship. However, three (I3, I4, A4) students also supported a negative effect of performance goals on autonomous motivation and one (C1) supported a negative effect of the inverse relationship suggesting that the valence of this reciprocal relationship may be conditional. In addition, nine students (I1, I2, I3, I4, A2, A3, A4 C1, C4) identified conceptual similarity, three discussed a contextual relationship (I3, A3, C1), one (I1) believed there to be no relationship, and one (C2) did not discuss this relationship. The contextual relationship was such that low autonomous motivation and performance goal attainment appear to co-exist without influencing each other (“I

get good grades in that course... even if I didn't think it was going to be a career" C1) while high autonomous motivation and the setting (I3) and attainment (A3) of performance goals also appear to co-exist without influencing each other. However, the evidence for a contextual relationship was discounted as each of these students also provided evidence for a reciprocal, positive relationship which was confirmed by the majority of students. Nonetheless, the high degree of conceptual similarity (identified by 75% of interviewees) may partially account for the perception of this reciprocal relationship.

The conceptual similarity was such that students felt autonomously motivated to obtain performance goals (I1, I2, I3, I4, A2, A3, A4, C1, C4); that is, students autonomously choose to set performance goals because they believe doing well and outperforming others is important and beneficial: "being better than other people, I think it's important right now" I2; "marks are important" A2; "I know that it'll be beneficial ... to do the best that I can in the college and allow for many more opportunities to open for me, is what makes it really important" I3; "your marks do matter .. you have to get good marks if you're going to get your degree - if you're going to get hired ... so that's important" A3. In other words, students may be autonomously motivated to do well in the future which is conceptually similar to setting future performance goals. Thus, students' discussions often lacked a clear distinction between these constructs which made the interpretation of cause-and-effect relationships difficult.

Despite this conceptual similarity, eight students provided evidence for a positive relationship from performance goals to autonomous motivation such that possessing performance goals is directly related to increased autonomous motivation: "I have to set those goals for myself to like motivate myself to actually get it done" (I2). The desire to achieve performance

goals (e.g. do well on an exam, use the information in real life situations, do better than others, etc.), and the belief that one may do so, causes one to become autonomously motivated (I2, I3, I4, A1, A2, A3, C4) to engage in academic activities that one expects will aid in the obtainment of these goals (e.g. attend class, prepare for class, do course work, etc.): “I don’t think I could do as well in the class if I didn’t go to class and actually attend the lectures ... the reason why I study and do all my homework ... is because I want to do good in my classes” (A2); “I would probably put a lot more time into that course because I feel like I could get a higher mark” (I3). Comparing one’s self to others who are less autonomously motivated also increases one’s own autonomous motivation: “that’s really important to me not to give up now because like a lot of people that I know, they ... just kind of ... shrug it off and quit ... if I just slack off ... like I know most people I know are doing, then ... it’s going to be that much harder to ... start keeping up again” (I2). This relationship may be moderated by intrinsic motivation and competence satisfaction such that setting performance goals may lead to especially high autonomous motivation in courses that one is also interested and competent in: “I would probably put a lot more time into that course, just because I feel like I could get a higher mark, just because I understand the stuff and ... I find it enjoyable to study” (I3).

Despite this consistency regarding the positive effect of *setting* performance goals on enhanced autonomous motivation, the effect of *obtaining* performance goals can be either positive (A2, A3, C1) or negative (A4, I3, I4). For some, obtainment of performance goals enhances autonomous motivation (A2, A3, C1; e.g. “my marks have been going up so that’s like a strong motivation to keep doing what I’m doing and to strive to do better” A2; “having a good mark is really motivating” A3) while the belief that one will not obtain performance goals

reduces autonomous motivation (e.g. “if ... I’m not going to do good at the class I find that it is harder to motivate myself to do the homework and the studying” A2). However, others perceived the relationship to be negative such that not obtaining performance goals increases autonomous motivation in order to obtain future performance goal and “equal everything out”(I3). This may be mediated by well-being such that not obtaining performance goals hinders well-being which increases students’ autonomous motivation toward future performance goal attainment in an attempt to revive their well-being. Interestingly, this negative relationship between performance goal attainment and autonomous motivation can co-exist alongside the positive relationship between setting performance goals and autonomous motivation (I3, I4). That is, the act of setting a performance goal increases one’s autonomous motivation to obtain it but subsequent attainment of the goal may reduce future autonomous motivation because one feels they are already doing “well enough” in the course while not attaining the goal may result in further increases in autonomous motivation to attain future goals.

The inverse of this relationship (i.e. the positive effect of autonomous motivation on performance goals) was also supported by eight students (I2, I3, A1, A2, A3, C1, C3, C4). Specifically, four (I2, I3, A2, A3) believed that autonomous motivation caused one to set performance goals and six (I3, A1, A2, C1, C3, C4) believed that autonomous motivation aided in attainment of performance goals. That is, autonomous motivation to attend a professional college or be “successful in the future” and “have a better life” causes one to set performance goals: “I have to be better than other people to get into professional colleges to get a better future” (I2); “[marks are] one of the things that determine if you get into medicine ... you’re compared to like a ton of other people” (A2); “I do want to do well, because as much as I like to

think your marks don't matter, it's your talent, your marks do matter ... you have to pass, you have to get good marks if you're going to get your degree - if you're going to get hired ... so that's important" (A3). For some (I2, A3, A3), low autonomous motivation toward specific courses was expected to cause lower performance goals within those courses. For example, I2 believed that once autonomous motivation to be accepted into a professional college was no longer present (i.e. after she is accepted to medical school), she will no longer set performance goals. However, A2 believed she *will* continue to set performance goals even after being admitted to a professional college because "it's just something that I've gotten use to ... marks are important". This demonstrates the multifaceted nature of autonomous motivation such that attributing importance to marks themselves may cause especially persistent motivation.

Autonomous motivation also positively aided in goal attainment. Specifically, when one believes goal attainment will be beneficial to their future and autonomously engages in academic activities, they are more likely to do well and outperform others: "I'm going to do well, because I know where I'm going to be [long-term]" (C1); "I think I'm able to do well if I apply myself ... if I don't go to class and don't do my homework then I'm not going to do well" (C1); "going to class makes ... helps me to obtain my goals and do better in school" (C3). Thus, absence of autonomous motivation is related to not obtaining performance goals (A2, C4). However, one student (C1) believed that low autonomous motivation (i.e. feeling as though course content does not apply to one's life or future career) is related to setting performance goals (i.e. "answer the questions on the test") as oppose to mastery goals (i.e. learn and understand the material) suggesting that the relationship may be negative in some cases. Indeed, C1 was the only student to experience low autonomous motivation suggesting that exceptionally low autonomous

motivation is needed for this relationship to be perceived as negative. This relationship may also depend on the belief that performance goals are needed to obtain one's desired future career (I2).

Controlling motivation and mastery goals. Five students supported a unidirectional relationship from controlling motivation to mastery goals, three of whom (I3, I4, A1) believed it to be positive, especially when controlling motivation was in the form of financial guilt, and two of whom (I1, C1) believed it to be negative. Three additional students (A2, A3, C2) supported a contextual relationship, two (I2, C3) believed there to be no relationship, and two (A4, C4) did not discuss this relationship. Interestingly, all but one of the seven students who reported a contextual or no relationship experienced high mastery goals and moderate controlling motivation while none of the five students who perceived a unidirectional relationship had this construct profile. All three students who perceived a positive unidirectional relationship experienced similar levels of the constructs (i.e. A1 and I3 had moderate mastery goals and moderate controlling motivation; I4 had high mastery goals and controlling motivation) but those who perceived a negative relationship experienced very different levels of each construct (i.e. I1 had high mastery goals but low controlling motivation; C1 had low mastery goals but high controlling motivation). This suggests that one's mastery goal-controlling motivation profile may impact the functioning of this relationship.

The contextual relationship (A2, A3, C2) was such that students experienced controlling motivation and set mastery goals with no clear evidence that the constructs influenced each other: "my parents have always encouraged my brothers and I to .. learn and to be open" (A3); "pushing myself to do the best I can... I have to ...learn lots" (A2). Indeed, I2, C2, and C3 claimed to set mastery goals whether or not they were forced to take the course. It is thus

possible that highly mastery goal orientated students adopt and obtain mastery goals even when experiencing high controlling motivation. Therefore, controlling motivation and mastery goals are able to co-exist but, for these students, the existence and obtainment of mastery goals appears to be in spite of controlling motivation rather than caused by controlling motivation.

However, controlling motivation in the form of financial guilt or anxiety does appear to directly influence one to set and obtain mastery goals (I3, I4, A2). That is, students who demonstrated guilt over cost of tuition consistently expressed their desire to do their best and master the course content in order to rectify this guilt. In addition, the belief that the social norm is to want to learn at university causes one to set mastery goals (A1). However, if one already sets high mastery goals (i.e. “to do as well as I can” I3), additional external pressures do not increase these goals further. Furthermore, some students (I1, C1) believe that controlling motivation in the form of parental or societal pressure can cause decreased mastery goals because, for these students, experiencing social pressure implies that one desires to do better than others. These students also believe controlling motivation would lead to decreased obtainment of mastery goals because “I wouldn’t want to be studying [if I was] so worried about others” (I1). Contrarily, reduced controlling motivation (e.g. “enrolling in something I didn’t feel pressured to be in” C1) is expected to increase one’s desire to learn the material because the student would presumably choose a course he or she is interested in (i.e. the relationship appears mediated by intrinsic motivation). Finally, obtaining a mastery goal (i.e. “learning”) appears to protect against the negative effects of controlling motivation (I1, I4, C1): “I felt forced but at least I benefitted from the class” (I4).

Controlling motivation and performance goals. Four students (I1, I4, A2, C3) endorsed a

positive, unidirectional relationship such that controlling motivation causes one to set performance goals. Three others (I2, I3, C2) also endorsed this relationship but believed it to be reciprocal. Students did not believe that a decrease in controlling motivation would result in fewer performance goals, suggesting that the relationship is purely facilitating. In addition, students only discussed the effect of controlling motivation on their desire to set performance goals suggesting that it is unrelated to one's ability to obtain performance goals. Furthermore, a negative relationship between the two constructs was never mentioned suggesting that the presence of controlling motivation is nearly always associated with performance goals and vice versa. However, five students (I2, I3, A2, C1, C3) identified conceptual similarity and three (A1, A4, C4) did not discuss this relationship.

The conceptual similarity was such that students experienced controlling motivation to obtain performance goals: “[it’s been] pushed into me to try hard to do good” (I2); “I don’t want to let them down and not be able to succeed ... they want to see me do well” (C3); “pushing myself to do the best that I can do” (A2); “you’re kind of taught, you have to do better than everyone else” (A3); “my parents think it’s important that I do well ... I have to be better than other people” (I2). Therefore, it was often difficult to distinguish between performance goals that students actually set and performance goals that students mentioned only as an articulation or example of the social and parental pressures they experience. In addition, a strong desire to obtain good grades or outperform others in order to reduce social pressures or please one’s parents is conceptually similar to controlling motivation.

Nevertheless, the majority of students believed that high controlling motivation increases one’s desire to set performance goals (I1, I2, I3, I4, A2, C2, C3): “if you’re concerned about

social pressure, you want to know that you are doing, hopefully better than everyone” (I1); “in high school when parents are telling you to do homework ... I don’t think I would have those goals on my own” (A2); “I feel like it’s a waste of money and time if you come here and you’re not trying to do your best at it” (I3). This relationship occurs whether the pressure comes from society (I1), the university (C2), financial guilt (I3, C3), parents (I4, A2, C2, C3), or classmates (I2) as students believe that demonstrating their competence (i.e. obtaining performance goals) will alleviate all these forms of external pressure. However, when one is already setting performance goals, increased controlling motivation does not appear to further increase their desire to demonstrate competence: “the goal for me is to do as well as I can, so I don’t think if there was external pressure telling me to do that that it would necessarily change” (I3).

Furthermore, a decrease in controlling motivation does not always decrease one’s desire to set performance goals (I3, A2) suggesting that the effect of controlling motivation on performance goals outlasts the actual presence of controlling motivation. For example, A2 experienced parental pressure in high school which caused her to strive to obtain high marks. In university, this pressure is reduced but she still feels compelled to set performance goals. She expects that external pressures will be even further reduced when she is admitted to a professional college (i.e. when she no longer has to compete with other students) but believes she will continue to set performance goals despite this decrease in controlling motivation. Furthermore, although high controlling motivation is related to greater effort spent to obtain performance goals (e.g. “if I had some huge scholarship and I had to maintain a 90 average ... I’d probably drop a few things in my life to make sure that happened” I3), there was no evidence that it facilitates actual obtainment of performance goals: “I do the best that I can already, so I

don't really know how much better I can necessarily do if I had pressure on me more" (I3).

The inverse positive relationship was also supported by three students (I2, I3, C2) such that setting performance goals causes increased pressure to obtain these goals. This controlling motivation comes from peers, society, and from one's own feelings of guilt and self-pressure. For example, obtainment of performance-approach goals ("I was always like the best in high school and the best in elementary school and I always had one of the top 1, 2, or 3 averages" I2) is related to increased pressure from other students to maintain this performance and the perception that community members expect one to outperform others: "it's kind of like a lot of pressure all the time" (I3). However, it is also possible that both controlling motivation and performance goals are influenced by a third construct such as autonomous motivation or dedication. That is, students who are highly dedicated or autonomously motivated to attend a specific professional college may experience high controlling motivation to attend and may also have a strong desire to set performance goals needed for admittance. Students' level of controlling motivate and performance did not appear to affect this relationship.

Autonomy satisfaction and mastery goals. Half of the students supported a unidirectional relationship between autonomy satisfaction and mastery goals but disagreed on its direction and valence; three (I2, A4, C4) believed autonomy satisfaction negatively affected mastery goals and two (I4, C1) believed this relationship was positive while another (I1) supported the inverse, positive relationship (i.e. that mastery goals positively affected autonomy satisfaction). An additional three students (A1, C2, C3) provided evidence that no relationship existed and two (A2, C3) supported a contextual relationship. The remaining two students (I3, A3) did not discuss this relationship. The contextual relationship was such that A2 and C3 experienced high

autonomy satisfaction and chose to set mastery goals but provided no evidence that two constructs influenced each other; rather, they appeared to co-exist in the same context. Similarly, A1, C3, and C4 did not perceive a relationship between their sense of autonomy satisfaction and mastery goals as they claimed to set the same goals regardless of their autonomy in class or autonomy to be themselves. C2 elaborated by describing autonomy satisfaction as fluid but goals as constant suggesting that highly mastery goal orientated students set mastery goals regardless of satisfaction of need for autonomy.

Contrarily, I2, A4 and C4 all believed that autonomy satisfaction was negatively related to one's desire to set and ability to obtain mastery goals. Specifically, when autonomy satisfaction is absent (e.g. "if the freedom wasn't there" I2) students are more likely to set mastery goals because "I have to make myself understand the information, rather than just like memorizing it ... because it wouldn't come as easily to me". Similarly, enhanced autonomy satisfaction may make obtainment of mastery goals more difficult because "nobody is going to push you or help you" (C4) and autonomy to be one's self during courses may hinder obtainment of mastery goals:

"as far as being myself to engage in class - if I was myself, I wouldn't probably be having ... I kind of have tunnel vision when I'm at school so that I kind of can retain information - if I'm looking every direction you kind of miss a lot of things I find, so I kind of... I'm not exactly my normal self when I'm in class" (A4).

That is, A4 chooses not to be himself in courses in order to facilitate obtainment of mastery goals because he associates being himself with not obtaining mastery goals.

However, this example also demonstrates that the ability to choose how to engage in

courses (i.e. the ability to choose to *not* to be one's self) is related to mastery goal attainment. I4 also supported this positive, unidirectional relationship such that he believed the ability to freely choose how to engage in classes aids in achieving mastery goals. C1 illustrated a positive effect of autonomy satisfaction on the desire to set mastery goals such that when she felt as though she did not choose her program of enrolment (i.e. low autonomy satisfaction) she did not set mastery goals but believed that increased autonomy satisfaction (e.g. "if I felt more like it was my decision") would cause her to strive to learn the material. This may be mediated by intrinsic motivation such that students with autonomy satisfaction choose to enrol in courses for which they are interested and this interest increases their desire to learn the material.

The inverse relationship (i.e. mastery goals' affect on autonomy satisfaction) was only discussed by one student (I1). I1 believed that possessing mastery goals (i.e. focusing on her "own personal knowledge") as oppose to performance goals (i.e. "worrying about others") enhanced her autonomy satisfaction by making it easier to be herself around campus. However, she juxtaposes mastery and performance goals when speaking so it is unclear whether it is actually the presence of mastery goals that enhances autonomy satisfaction or merely the absence of performance goals. Although students with high mastery goals tended to support the negative effect of autonomy satisfaction on mastery goals, there was no conclusive mediating effect of students' level of mastery goals or autonomy satisfaction on the functioning of this relationship.

Autonomy satisfaction and performance goals. There was little consensus regarding the relationship between autonomy satisfaction and performance goals as four students (I2, I3, A2, C3) supported a contextual relationship, three (I2, I4, C1) believed autonomy satisfaction positively influenced performance goals, one (C4) believed autonomy satisfaction negatively

influenced performance goals, and one (I1) believed performance goals negatively influenced autonomy satisfaction. Of the remaining students, two (A3, A4) did not discuss this relationship and two (A1, C2) believed no relationship existed. To reiterate what was said for the autonomy-mastery goals relationship, C2 perceived autonomy satisfaction to be fluid while goals are constant. This suggests that highly performance goal orientated students set performance goals regardless of their satisfaction of the need for autonomy. Indeed, A1 and C2 believed autonomy to be themselves at university and autonomy to choose how to engage in courses was not related to setting or obtainment of performance goals as they claimed to set the same goals regardless of their autonomy in a class. I2 and C1 also endorsed this sentiment but supported a contextual relationship. Specifically, I2, I3, A2, and C3 all experience high autonomy satisfaction and choose to set performance goals but do not believe the constructs directly influence each other suggesting that, if any relationship exists, it may be purely contextual: “that’s my choice that I want to do good” (A2). That is, these students feel free to set any type of goals and choose to set performance goals; setting performance goals may influence the choices they make, but it does not influence their overall feeling of having a free choice.

Nevertheless, I2, I4, and C1 all maintain that autonomy satisfaction increases one’s desire to set and ability to obtain performance goals. Specifically, autonomy satisfaction allows one to freely set performance goals and the desire for future autonomy satisfaction (i.e. retain the option to stay in university) causes one to set the performance goal of passing all courses. Autonomy satisfaction also promotes attainment of performance goals because one feels free to do what is best for them to obtain their goals. Therefore, it appears having the ability to choose how to engage in academic activities allows one to experience autonomous motivation which results in

obtainment of performance goals: “I’m able to do well if I apply myself ... it’s the choices that I make that allow me to do well” (A2). However, there is contention regarding whether or not autonomy satisfaction directly influences performance goals. In some cases, high autonomy satisfaction may make attainment of performance goals more difficult because “nobody is going to push you or help you” (C4); however, this was only mentioned by one student. Finally, the inverse relationship was only discussed by I1 who believed that absence of performance goals increases autonomy satisfaction because when one is not “worrying about others”, they feel free to engage with their academic activities. I1 appears to experience the lowest level of performance goals compared to all students which may explain why she was the only student to experience this direction of the relationship.

Competence satisfaction and mastery goals. The majority of students (I1, I3, I4, A3, A2, C1, C3) supported a positive, reciprocal relationship between competence satisfaction and mastery goals while two others supported unidirectional aspects of this relationship (I2, A4). However, conceptual similarity was also evident (I2, I3, C4) which may at least somewhat account for the perceived reciprocal relationship. In addition, one student mentioned a negative effect of competence satisfaction on mastery goals suggesting that this form of the relationship is possible in certain cases. The remaining students (A1, C2) did not discuss this relationship.

The conceptual similarity was such that students equate feeling competent with having obtained a mastery goal; that is, the examples given to reflect mastery goals also reflect competence satisfaction: “I feel that I understand like a lot of the material that is presented to me” (I3), “understanding is competence ... to understand something is to be competent in it” (I2). In addition, claiming to obtain mastery goals is conceptually similar to claiming one has

high competence: “I just feel like I understand things pretty good and I just feel, I feel really confident” (I3), “I feel competent that ... I can understand the material well” (I2).

Despite this conceptual similarity, eight students (I1, I3, I4, A2, A3, A4, C1, C3) did support the causal effect of competence satisfaction on setting and obtaining mastery goals. Specifically, feeling competent and confident facilitates the obtainment of mastery goals: “it’ll save me time on like studying and stuff like that if it just comes to me a lot easier” (I3). Some students even suggested that mastery goals can not be obtained without competence satisfaction (I1, C1, C3): “unless you’re like super smart, it’s going to be hard to attain all of the information (C3); “once I feel like I can do it ... I go to understanding it” (I1); “I know that if I set my mind to do something, I can get it done” (C1). Competence satisfaction also affects the specific mastery goals formed such that students set goals they feel competent to obtain (A2, A3, A4, I4); that is, those who feel highly competent set high mastery goals while those who feel less competent set lower goals: “I set my goals based on what I think I can do” (A2).

For most, this positive relationship exists for overall competence satisfaction as well as course-specific competence satisfaction. Contrarily, for A3, course-specific competence satisfaction actually had a negative effect on mastery goals such that lowered competence satisfaction in a specific course caused him to set mastery goals in that course (i.e. focus on personal best rather than outperforming others). This relationship may be mediated by performance goals such that low competence satisfaction causes one to believe that they will not obtain performance goals which causes them to shift their focus to mastery goals instead: “I’m terrible at math ... I couldn’t do better than someone at Math, so what I had to teach myself ... was, you can only do as well as you possibly can” (A3). Interestingly, in some cases, low

competence satisfaction may be needed in order to recognize obtainment of mastery goals: “I learned a lot about writing essays for university because, what I learned in high school ... did not prepare me at all” (A3).

The inverse of this relationship - the effect of mastery goals on competence satisfaction - was also supported by eight students (I1, I2, I3, I4, A2, A3, C1, C3). Desire to obtain and actual obtainment of mastery goals directly increases competence satisfaction: “I feel capable of doing well just because... I think it’s pretty easy to like learn the material” (C1); “if you know the subject ... you’re going to be a lot more confident taking the test and going to class” (C3); “I am confident because I learn from my mistakes” (A3); “if ... I understand it better ... I feel like I can do better in the classes” (A2); “I think [my competence is] a reflection of just understanding the material” (I3). I2 supported this relationship to the extreme, believing that obtainment of mastery goals is necessary in order for competence to be satisfied (“to be competent, you have to understand the information”) and that competence will always be satisfied if mastery goals are obtained (“to understand something is to be competent in it”). Similarly, not obtaining mastery goals causes decreased competence satisfaction: “if you don’t understand something... it’s just harder to become competent with the information” (I2). This relationship did not appear to be affected by students’ level of competence satisfaction or mastery goals.

Competence satisfaction and performance goals. The vast majority of students (I1, I2, I3, I4, A1, A2, A3, C1, C2, C3) supported a reciprocal, positive relationship between competence satisfaction and performance goals. Only two students did not support this reciprocal relationship, one of whom (C4) discussed a positive, unidirectional relationship from competence satisfaction to performance goals and one of whom (A4) did not discuss any

competence-performance goal relationship. However, five students (I3, I4, A1, A2, A3) also identified conceptual similarity which may partially account for the perceived reciprocal relationship. Students' level of competence satisfaction and performance goals did not appear to affect this relationship.

Because the definition of performance goals includes a desire to demonstrate competence, its conceptual similarity to satisfaction of the need for competence is undeniable. Indeed, students did not always differentiate between high competence satisfaction and the belief that one can obtain performance goals (e.g. "I feel like I could get a higher mark" I3) and achieving or not achievement performance goals was often given as an indicator of the presence or absence of competence satisfaction, respectively (I4, A1, A3). Similarly, students feel competent in their ability to get good grades and do well (e.g. "I have the ability to get good grades" A2) and compare their own competence satisfaction with that of other students which further blurs the distinction between these two constructs.

Despite this conceptual similarity, all but one student believed that competence satisfaction influenced the setting and obtainment of performance goals. Specifically, competence satisfaction influences the specific performance goals one sets such that students set performance goals they feel competent to achieve (I1, I2, I3, I4, A1, A2, A3, C1, C2, C3, C4): "being more competent in [what] I'm doing gives me the ability to set the bar higher ... and have higher goals" (I3); "I usually set [goals] based on how I think I can do in the class, so like if I think that I can get a certain mark then that's what my goal is" (A2); "I know that I can meet the requirements and I know that I can get by, so those are the goals that I set" (C1). In addition, low competence satisfaction may cause students to avoid trying to outperform others (A2, A3;

“I’m terrible at math ... I couldn’t do better than someone at Math ... you don’t want to set yourself up for failure” A3) despite still focusing on performance goals in the form of marks. Thus, low competence satisfaction does not cause one to *stop* setting performance goals; rather, it causes them to set *lower* performance goals (e.g. to pass, to meet the class average) compared to students with high competence satisfaction (e.g. to be best in the class, to have a 90% average). For example, A1 sets the performance goal of a 70% average in courses that she feels competent in but, in courses she “struggles with”, her goal is merely to pass. However, there may be a point at which further increases in competence cease to affect one’s performance goals: “I feel like I do the best that I can already, so I don’t really know how much better I can necessarily do” (I3). This relationship also extends to the work force as students believe competence satisfaction is needed in order to be able to obtain long-term performance-goals in their career (i.e. demonstrate competence on the job).

The presence of competence satisfaction also facilitates the obtainment of performance goals (I1, I2, A2, C1, C2, C3; e.g. “[if] you’re competent ... you will do better than other people ... you have to feel competent, think confident about yourself if you’re to do well” I2) while the absence of competence satisfaction hinders obtainment of performance goals (I1, I2, C1, A2): “I have no competence in math... if I kind of gave myself higher self-esteem when it came to math, then maybe I would be able to reach standards, but I feel like because I already kind of say ‘no, I’m not going to do well’ that then I don’t” (C1). This effect appeared fairly robust but students did report occasional exceptions: “sometimes I do a lot better than I thought and sometimes I do worse” (A2). The effect of competence on one’s ability to obtain performance goals appears to be mediated by intrinsic and autonomous motivation: “if I don’t feel like I’m

going to do very good at the class then I'm probably not going to enjoy it and it's going to be harder to like apply myself and get the marks" (A2).

This relationship appears to be reciprocal ("I would say it goes both ways" I3) in that 10 students (I1, I2, I3, I4, A1, A2, A3, C1, C2 C3) believed that obtaining or not obtaining performance goals influenced their sense of competence. Specifically, achieving performance goals as a result of feeling competent further increases one's sense of competence (I1, I2, I4, A1, A2, A3, C1, C3): "if I'm succeeding ... then I think that my competence would even be higher, so I think if I'm setting goals and I'm achieving them, then ...my confidence does go up" I3; "doing something that you set out to do definitely makes you feel like you accomplished something" C3; "that's what makes me feel like I'll do well in university ... it gives me confidence that I am a lot better than others" I2). However, the resulting increase in competence satisfaction may be course-specific; that is, obtaining a performance goal may not always increase overall competence satisfaction but will consistently increase competence satisfaction within that specific course. This relationship may be mediated by intrinsic motivation such that if one obtains performance goals but does not enjoy the course, their competence is not increased: "if you don't enjoy it ... you don't feel like you are succeeding, even if you are" (A3). Furthermore, obtaining good marks alone may not lead to competence satisfaction if other performance goals (e.g. being able to demonstrate knowledge by explaining it to others) are not obtained (I2).

Similarly, not obtaining certain performance goals (i.e. marks) does not hinder competence satisfaction if one has obtained other performance goals: "my marks have gone down ... but I still feel really good about it and I still know I can explain things to people and

I'm still good at it" (I2). Indeed, some students (I1, I2, I3) felt the effect of performance goal obtainment on competence satisfaction was facilitating in that not obtaining performance goals did not reduce their competence satisfaction (e.g. "obtaining the goal makes me feel more confident, but I would say if I didn't succeed in something ... I don't think it necessary lowers my competence" I3). Others reported that not achieving performance goals leads to feelings of incompetence (A1, A2, A3, C1, C2): "if I do bad then it kind of like lowers my confidence" C1; "setting goals about marks and you achieve them, that makes you feel good about yourself, if you don't achieve them, then you don't" A2. In addition to obtainment of other performance goals, this relationship also appears to be mediated by intrinsic motivation and mastery goals. That is, if one enjoys a course or if mastery goals are obtained, competence satisfaction may be maintained even though performance goals were not obtained. Finally, competence satisfaction appears to mediate the performance-goal-well-being relationship such that not obtaining a performance goal has an especially negative impact on well-being when one previously believed they were competent in the area.

Summary of Structural Analysis. A primary concern prior to conducting the interview analysis was that, given the open ended nature of the interview and complexity of academic motivation, students may support all types of relationships for each potential relationship included in the study. For example, if each of the 12 students supported each of the 5 types of relationships for all 42 relationships, there would have been 2,520 unique labels applied to relationships for analysis (see Table 5-3 for listing of labels). Not only would these results have been unmanageable, they would also do nothing to further the knowledge of a generative motivational mechanism. Luckily, this was not the case as there were only 500 unique labelings

Table 5-5. Types of relationships in order of useage.		
Type of Relationship Label	Number of relationships applied to (of 42)	Number of times applied (max = 504; 12 students x 42 relationships)
Unidirectional	41	214
No data	37	119
Reciprocal	27	108
Conceptual similarity	23	95
Contextual relationship	20	59
No relationship	17	24

and 119 instances of no data (total = 619 labelings). Thus, there was an average of 15 labels per relationship (range = 12 - 27); given that there were 12 interviewees, each relationship was given multiple labelings by an average of only three students. Notable exceptions were the relationships between performance goals

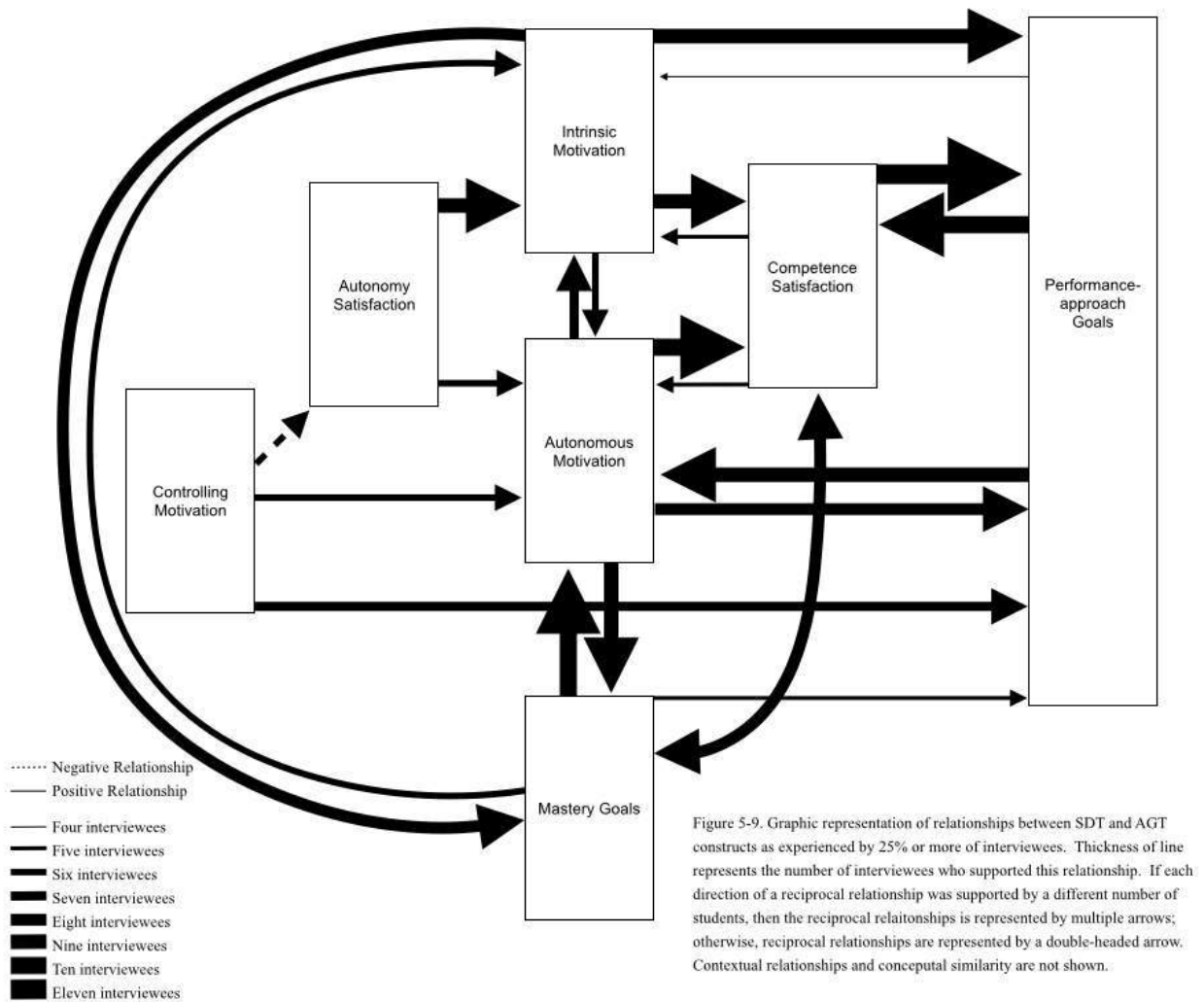
and autonomous motivation (27 labels) and mastery and performance goals (23 labels) each of which had a high degree of conceptual similarity in addition to other applied labels. This selectiveness of students in discussing types of relationships between variables supports the distinction between 5 specific types of relationships and suggests that the experience of relationships between variables may be somewhat universal for students.

Of the six types of relationships, Unidirectional was the label most commonly applied as it was used at least once for 41 of the 42 relationships and 214 times in total (Table 5-5; Appendix H). Of the 214 unidirectional relationships identified, 79% were positive ($n = 170$) and 21% were negative ($n = 44$). The majority of relationships ($n = 27$ of 42) were labelled as reciprocal by at least one student with the reciprocal label being used 108 times in total. For 83% ($n = 90$) of the relationships labelled as reciprocal, the relationship was positive in both directions; it was negative in one direction and positive in the other for 11% ($n = 12$) of the reciprocal relationships and negative in both directions for 5% ($n = 6$). The least common types of relationships were conceptual similarity, contextual relationship, and no relationship (Table 5-5). A detailed

breakdown of relationship labels and valencies for each relationship is given in Appendix H.

As one might expect, combining Figures 5-4 to 5-8 above results in a highly complex graphical representation that borders illegibility. However, this graphical representation of the motivational mechanism is simplified considerably when paths supported by fewer than 4 students (less than 25%) are removed and reciprocal relationships are broken up and combined with the corresponding unidirectional relationships. Figure 5-9 and 5-10 below depict all relationships depicted in previous figures with relationships supported by one student ($n = 28$ lines), two students ($n = 19$ lines) or 3 students ($n = 12$ lines) removed. Unidirectional relationships were also absorbed into reciprocal relationships when relevant but are depicted separately to illustrate when one direction was stronger than another. Thus, all lines shown are supported by four (25%) or more interviewees and can be considered robust relationships. In addition, line weights can act as a measure of effect size as they indicate the number of students who supported each relationship; relationships salient to a greater number of students can be assumed to have a greater effect than relationships salient to fewer students.

Figure 5-9 depicts the relationships between SDT and AGT constructs as experienced by 25% or more of interviewees. In support of SDT, autonomy satisfaction appears to positively impact intrinsic and autonomous motivation; however, it appears autonomy satisfaction is primarily negatively affected by controlling motivation rather achievement goals as predicted by Drylund's (2009) integrative model. In addition, the positive effect of intrinsic and autonomous motivation on competence satisfaction appears to be much greater than the effect of competence satisfaction on these motivation types; this contradicts SDT which primarily focuses on the effect of need satisfaction on motivation and not the reciprocal relationship depicted here. There also



appeared to be robust, reciprocal, positive relationships between competence satisfaction and both goal types as well as between both goal types and autonomous motivation, suggesting that AGT and SDT do interact in producing academic motivation. As predicted by the integrative model, controlling motivation appears to be more closely related to performance goals than mastery goals although the direction is strictly from controlling motivation to performance goals.

Figure 5-10 depicts the relationships between all motivational constructs and outcome variables. As expected, the direction of relationships primarily went from SDT and AGT constructs to outcome constructs although dedication did reciprocally impact autonomous motivation and academic achievement impacted both competence satisfaction (reciprocally) and

was created to depict all relationships between variables as supported by the majority of interviewees. Specifically, Figure 5-11 depicts relationships supported by 7 (58%) or more interviewees. This data will be used to address each hypothesis in the following discussion and will then be compared to data generated by Study 1 in the general discussion.

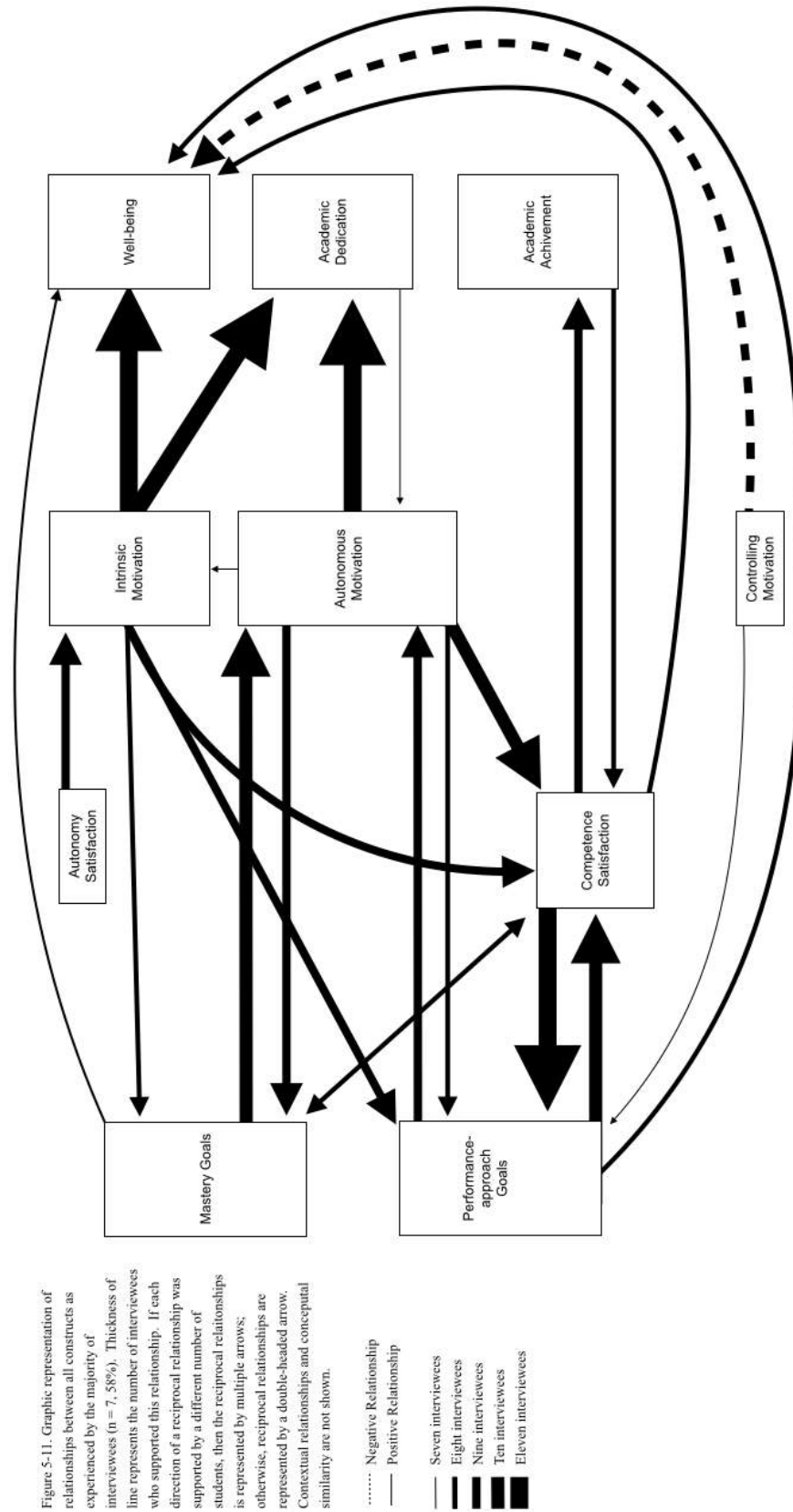
Discussion

The primary concern of researchers conducting qualitative, case-based research is often how to generate scientific conclusions out of a complex collection of stories, statements, recollections, and memories often perceived as messy and unstructured. Indeed, it is very difficult to condense the rich, multi-faceted results previously provided into a coherent, theoretical summary without oversimplifying the data. However, causal mapping offers one way to apply the rich qualitative data obtained in Study 2 to the specific hypotheses tested in Study 1. Specifically, the causal map in Figure 5-11 which depicts relationships experienced by the majority of respondents will be used to address each hypothesis.

H1: The goal-outcome relationships of AGT will be supported in the current sample.

In support of AGT and the Multiple Goal Perspective, mastery and performance goals were seen as two distinct, unrelated goal types albeit there was some conceptual similarity as previously discussed. Also in support of AGT, mastery goals appeared to have a direct, positive impact on well-being but not academic achievement. However, mastery goals were also predicted to positively impact academic dedication which did not appear to be the case in this study. Further contradicting AGT, performance-approach goals did not directly affect achievement but did positively affect well-being; the affect of performance goals on well-being was even slightly greater than the affect of mastery goals on well-being which entirely contradicts AGT. Finally,

Figure 5-11. Graphic representation of relationships between all constructs as experienced by the majority of interviewees ($n = 7, 58\%$). Thickness of line represents the number of interviewees who supported this relationship. If each direction of a reciprocal relationship was supported by a different number of students, then the reciprocal relationships is represented by multiple arrows; otherwise, reciprocal relationships are represented by a double-headed arrow. Contextual relationships and conceptual similarity are not shown.



performance goals were unrelated to academic dedication as predicted by AGT. In general, H1 was not supported as mastery and performance goals had virtually the same impact on outcome constructs (i.e. both positively affected well-being but were unrelated to dedication and achievement).

H2: The relationships proposed by SDT will be supported in the current sample.

SDT predicts that controlling motivation will negatively impact all academic outcomes while all other motivation types and needs satisfaction will positively impact all academic outcomes. This prediction was partially supported as controlling motivation had a strong negative impact on well-being while intrinsic motivation had a strong positive impact on both well-being and academic dedication. Autonomous motivation also had a strong positive impact on academic dedication. In addition, and competence satisfaction enhanced both academic achievement and well-being. However, the remaining effects of motivation types and needs satisfaction on outcome constructs were not experienced by the majority of students. Furthermore, the relationship between autonomy satisfaction and academic dedication appeared to be reciprocal as strong dedication lead to further increases one's autonomous motivation

SDT also predicts that satisfaction of the needs for autonomy and competence will promote intrinsic and autonomous motivation but not controlling motivation. This was partially supported as the majority of students did not report a relationship between competence or autonomy satisfaction with controlling motivation but did report a positive affect of autonomy satisfaction on intrinsic motivation. However, the relationship between competence satisfaction and intrinsic and autonomous motivation was contrary to that predicted as it appeared intrinsic and autonomous motivation each satisfied the need for competence among the majority of

students while increased competence satisfaction had no affect on intrinsic or autonomous motivation. That is, the inverse relationship, not discussed by SDT was primarily supported. Finally, autonomy satisfaction was unrelated to autonomous motivation for the majority of students. In total, of the 21 relationships predicted by SDT, 11 were not supported by the majority of students, eight were supported, and two were contrary to those predicted. Thus, it appears H2 is only partially supported by Study 2 results.

H3: AGT and SDT constructs will be related in the manner predicted by Drylund's (2009) integrative model. H3 predicted that mastery approach goals would positively predict all SDT constructs except controlling motivation which it would negatively predict and that performance-approach goals would positively predict controlling motivation but be unrelated to all other SDT constructs. In general H3 was not supported as it appeared as though most students believed SDT constructs had a larger affect on AGT goals than AGT goals had on SDT constructs. Specifically, both mastery and performance goals were positively influenced by intrinsic motivation and had positive, reciprocal relationships with autonomous motivation. Controlling motivation also positively affected performance goals but was unrelated to mastery goals. Both goal types were also unrelated to autonomy satisfaction but had strong, positive, reciprocal relationships with competence satisfaction. Therefore, it appears SDT and AGT do interact to produce academic motivation but they do not appear to be related in the manner predicted by Drylund (2009).

Although Study 2 failed to cleanly support or refute each of the hypotheses, it increased comprehension of motivational constructs and their relationships while offering many new insights that may contribute to the advancement of both SDT and AGT. Specifically,

componential analysis expanded the current conceptualization of the motivation constructs to allow a more phenomenological understanding of their experience by students. The fluid nature of all variables and contextual factors that influence their experience was consistently mentioned in both componential and structural analysis. Thus, in addition to addressing each of the hypothesis set a priori, Study 2 results provided novel insights relevant to AGT and SDT in general. These insights were provided in detail above (see results section) and are only briefly summarized here as evidence against the common criticisms of case-based research.

Potential Limitations of Study 2

Qualitative, case-based research is often subjected to the same recurring criticisms such as its unsuitability for hypothesis testing, the inability to generalize results, the potential for a verification bias, and its reliance on self-report data. Although some of these criticisms are valid and evident in Study 2, others were actually discredited by Study 2. These falsified limitations will be discussed first followed by true limitations unique to the current study and suggestions to reduce these limitations when implementing this method in the future.

Using Qualitative, Case-based Methods for Hypothesis Testing. First, there is the persistent perception that case-based, qualitative research should only be used to generate hypotheses and is limited in its ability to test hypotheses and build theory (Flyvbjerg, 2006). According to this perception, qualitative research should only be used when exploring a novel research domain; this notion may account for the lack of current qualitative research within academic motivation given the field's long history. However, Study 2 supports the counter argument by demonstrating that case-based data can be appropriate for hypothesis testing and are most productive when applied in conjunction with existing theory. Specifically, a hypothesis

must pass the test of falsification in order to warrant scientific status and in-depth, case-based data provides the most rigorous test of falsification (Flyvbjerg, 2006). For example, if just one qualitative observation does not fit the hypothesis's prediction, then the hypothesis must be revised or rejected. Therefore, attempting to apply a theory to an intact, qualitative case whittles away invalid hypotheses more effectively than continuously running the same between-subjects statistical tests. In addition, structuring a qualitative case-study in accordance with well-articulated and previously supported theory, as was done in Study 2, allows direct and valid testing of that theory.

Indeed, it is not uncommon for psychological theories that have endured the test of time to eventually succumb to a theoretical crossroad wherein their supporters break off into different camps, each supporting a different adaptation of the original theory. For example, as previously discussed, a subset of SDT researchers have replaced the original continuum of motivation with the three distinct motivation types used in this study. Similarly, some AGT researchers have argued for the parting of performance goals into two types: goals focused on demonstrating ability and goals focused on outperforming others (Senko et al., 2011). These conceptual challenges regarding how best to define constructs often spark considerable debate and continue unresolved for decades as both perspectives are often rooted in sound theory with their own pros and cons. The between-case componential analysis used in the current study offers a novel approach in reconciling these challenges as it allows competing theoretical conceptualizations of constructs to be directly compared to the understanding and articulation of constructs by those who experience them first hand. That is, allowing participants to openly discuss concepts in their own words can increase theoretical knowledge and generate theory development when analyzed

using causal mapping.

Utility of Generalizing From a Single Case. A second common criticism of case-based research is that one can not logically generalize from a single case to the entire population and therefore qualitative, case-based research can not contribute to knowledge regarding scientific laws or principals. Indeed, as previously discussed, the 12 participants interviewed do not reflect a representative sample of surveyed participants who in turn are not representative of the general student population. However, the counter-argument posits that formal generalizations are often overvalued in modern social science while the contributions of specific examples are underestimated (Flyvbjerg, 2006). That is, the expectation to reveal predictive and stable laws in the social sciences is naive and over-simplistic. The results of Study 2 clearly demonstrate that contextual and temporal factors greatly influence the functioning of internal mechanisms that affect the academic motivation of students. Thus, the relationships experienced by one student logically can not be blindly applied to all other students. However, the basic principles of these relationships may be generalized to other students in similar academic contexts. That is, knowledge of a psychological phenomena obtained through qualitative, case-based research can be accurately generalized to other individuals if and only if the contextual factors influencing that phenomena are understood and are similar in both individuals (Flyvbjerg, 2006).

Although limiting, this less inclusive form of generalization is often more useful for practitioners as practitioners only ever seek to predict or influence the behaviour of a specific individual in a specific context. To paraphrase Valsiner (1986), case-based research allows one to handle unique problems which are often more important than generalized problems as one needs to know “how to handle THIS tantrum” or whether to implement THIS intervention at

THIS time. Specifically, context-dependent knowledge, obtainable only through case-studies, is more valuable to the study of human behaviours than general, context-independent knowledge because universals do not exist in the social sciences (Flyvbjerg, 2006). This form of generalization is referred to as theoretical generalization (Yin, 2009) and is often contrasted with the conventional statistical or enumerative generalization relevant to Study 1.

Verification Bias. A third common criticism directed at qualitative, case-based research is the potential bias toward verification; that is, some believe that researchers tend to confirm their preconceived notions when conducting qualitative analysis (Flyvbjerg, 2006). Although confirmation bias is a fundamental human characteristic that all researchers must consider, those most experienced with qualitative analysis assert that this form of analysis actually contains a greater bias toward falsification as contradictory findings are often more stark and less easily discounted than those obtained through statistical analysis (Flyvbjerg, 2006). That is, the preconceived views, assumptions, or hypotheses of qualitative researchers are often directly corrected by participants who are able to “talk back”, explain their positions, and argue with the researcher. This candid response from the participant allows qualitative researchers to revise their hypotheses immediately, an opportunity that is not afforded to quantitative researchers who seldom interact with their participants (Flyvbjerg, 2006). Indeed, many Study 2 results did not verify the longstanding predictions of SDT and AGT; yet, the veracity in which these results were obtained and defended by students compels the author to seek revision of the existing theories and her own preconceived notions rather than discount the qualitative data.

However, the verification bias was evident to some degree in Study 2. Most notably, the words and phrases used in interview question stems to reflect each construct were the most

common words used by participants when discussing constructs. That is, participants repeated the researcher's preconceived articulation of the constructs, thus verifying the pre-established theoretical definitions of each construct. In the future, it may be useful to counterbalance interview question stems in order to avoid this verification bias; however, given the necessity of standardized, specific language in scientific research, referring to constructs using different terms raises its own limitations which are perhaps more critical. Similarly, the possibility that the researcher may have filtered her own understanding of each construct when coding interview transcripts is unavoidable. That is, the researcher can only code phrases that she believes reflect a given construct and is thus inherently imposing her understanding of the constructs into the analysis. For example, the researcher personally tends to set high, marks-based, performance goals and thus these are the specific types of goals that she considers prototypical of performance goals. Therefore, extra effort was needed to ensure that lower goals such as passing a course or meeting class average were accurately coded as performance goals because these types of goals did not immediately stand out to the researcher as performance goals during coding.

This potential verification bias was also evident when analyzing relationships between variables. For example, at one point during structural analysis of interview matrices, the researcher noticed that she wrote "acknowledges that understanding material will lead to high marks" to describe the positive effect of mastery goals on achievement demonstrated in an excerpt of the participant's transcript. Alone, this does not appear to be a biased analysis; however, the researcher also wrote "believes that not achieving mastery goals hinders well-being" to describe the positive effect of mastery goals on well-being. Although subtle, the differences in meaning of "believes" and "acknowledges" reflect the researcher's bias as

“believes” implies that the statement is believed solely by the participant while “acknowledges” implies that the participant is aware of a universal fact. Thus, the researcher realized that she had been writing “acknowledges” when she shared the beliefs of participants but wrote “believes” when she did not. After this subtle bias became salient, the researcher rectified all previous comments and ensured that she always used “believed” when referring to the beliefs of participants irrespective of whether or not she shared the belief. However, it is possible that biases similarly as subtle remained unnoticed by the researcher and may thus persist within the analysis. Thus, the potential for the verification bias is a true limitation of qualitative, case-based research and should stimulate self reflection among any researchers choosing to engage in this type of research.

Dependency on Self-report Data. All scientific findings are only as accurate as the data that support them. Thus, research that relies on the self-report data of participants, many of whom have little stake in the study’s outcomes, is limited in that it depends entirely on the accuracy and completeness of this self-report data. This data is primarily compromised by the social desirability bias wherein participants filter their responses in a manner deemed to be most socially acceptable. This bias was clearly evident in Study 2 as many participants were hesitant to report high competence satisfaction, achievement, or performance goal attainment for fear of appearing too “cocky” or as though they are “bragging”. Some students who admitted to increased enjoyment as a result of outperforming others actually apologized for this during the interview despite it having no impact on the interviewer. These responses reflect participant’s desire to appear humble and agreeable, two traits highly desired in Canadian culture. The desire to appear agreeable may have also caused students to provide the responses that they expected

the researcher to want as evidenced in I2's question: "is that a good answer?". In addition, students appeared to believe that autonomous motivation was viewed positively while controlling motivation was viewed negatively and this undoubtedly influenced their responses. In many cases, it was difficult to judge students' sincerity in responses which may have biased the results.

In addition to the social desirability bias, accuracy of self-report interview data may also be compromised by the tendency of some participants to avoid discussing their personal experience of each variable and instead speak in vague, hypothetical terms about an ubiquitous "you". When students speak in these general terms it is difficult to determine whether the relationships they discuss apply to them, personally or whether their transcripts merely reflect a cliché dialogue commonly repeated in society. For example, should the phrase "you want to try to do the best that you can" be interpreted as a specific goal that C4 sets for himself or does it merely reflect C4's belief that most students try to do the best that they can? Furthermore, students who spoke using the ubiquitous "you" tended to contradict themselves and avoided providing personal reflections or specific examples. While responses to some questions may require a hypothetical response (i.e. if the student had never experienced the situation before), over-reliance on hypothetical language and vague, non-personal responses may reflect a desire to appear socially empathetic to the average student (i.e. the ubiquitous "you") or a resistance to revealing personal information. The usage of common cultural dialogue (e.g. "you have to try your best") may also reflect the desire to respond quickly without engaging in difficult personal reflection. Regardless of students' reasons for speaking in general terms, the existence of this language is a potential limitation of Study 2.

Students also differed greatly in their ability to and/or willingness to articulate complex relationships between variables. That is, some students appeared to have previously thought about the reasons for their academic motivation and were able to directly address the interview questions with well formed insights and clear, on-topic examples. Contrarily, some students appeared generally confused by the interview questions and provided very shallow responses that bordered on cliché. These students tended to respond similarly to all questions and discussed relationships as either existing or not existing. Students who were better able to articulate their responses were more likely to discuss reciprocal relationships and provide contextual qualifiers for each relationship. This division of students likely reflects a natural range in linguistic ability and intellectual maturity. However, these differences may also reflect a division based on motivational state wherein students in an initial motivational state are unaware of their reasons for engaging in academic activities and are disorganized in their thinking about motivation. These students may eventually move to a structured motivational state wherein their motivation is salient and the factors that affect it are well understood. These differences in ability to articulate one's internal motivation, specifically the inability of some to articulate motivational constructs or their lack of salience for some students, is a major limitation of self-report data.

These potential limitations of self-report data require the researcher to pay extra attention when analyzing interview responses to ensure he or she is interpreting the participant's response correctly. For example, the word "correlate" was used by most interviewees when discussing the relationship between two constructs. Although many used the term correctly, it was also frequently misused or applied in a more colloquial sense as oppose to the statistical relationship most researchers are familiar with. One must be very cognizant of these differences in language

and interpretation when analyzing self-report data. However, many psychological phenomena exist entirely within individuals, and therefore, can only be studied through self-report data or personal reflections. Compared to self-report questionnaires, self-report interviews minimize the potential limitations of self-report data by allowing two-way interactions between the researcher and participant which hopefully reduces most inaccuracies.

Low Inter-rater Reliability. The low inter-rater reliability values previously discussed are a key criticism of Study 2. Specifically, within the four transcripts that were coded by a second researcher (i.e. an undergraduate volunteer research assistant), only 24% (range = 17 - 53%) of the researcher's codings were replicated. However, this finding is not an inherent quality of qualitative data or causal mapping; rather, it more likely reflects the minimal training given to reliability coders in the current study. Indeed, most inconsistencies between the researcher's initial codings and reliability codings were the result of the reliability coder coding much fewer excerpts than the researcher. However, the primary purpose of inter-rater reliability coding in Study 2 was to articulate and validate an efficient means of assessing inter-rater reliability that can be used in future research using the method of causal mapping. In this regard, the reliability rating of Study 2 succeeded in its purpose. In addition, the current study may benefit more from confirmatory testing than high inter-rater reliability. That is, conducting the same analysis on a new set of students will likely provide more useful information regarding the validity of Study 2 results than repeating analysis of the existing interviews with a new researcher.

Post Hoc Development of Relationships Types. Finally, the fact that relationship types were identified after the interviews were conducted was a limiting feature of this study. Future implementation of construct-centred interviews to be analyzed using causal mapping will be

more effective if the researcher is cognizant of the four distinct types of relationships (reciprocal, unidirectional, conceptual, contextual) when conducting the interview. This will allow the researcher to more thoroughly discuss each relationship with students and seek direct evidence to refute or support each type of relationship, each direction of the relationship, and each valence of the relationship (positive and negative). This will allow more confident labelling of relationships during analysis and will likely reduce the instances of multiple labels applied to a single relationship within single transcript. It may also provide more information regarding how and why the type of relationship may shift in different context (e.g. in what contexts is the relationship reciprocal vs. unidirectional?).

Contrarily, when conducting the interviews of the current study, the researcher did not fully inquire about each type or aspect of each relationship as these types were developed later and all aspects were not fully salient to the researcher. As a result, the informative secondary labels of “facilitating” and “impeding” were rarely used to qualify unidirectional relationships. It is likely that facilitating and impeding relationships are more common than indicated in the current analysis but were not revealed because the researcher did not know to specifically inquire about all aspects of a relationship. Specifically, there are potentially eight aspects to any relationship, each of which can be supported, refuted, or unknown (i.e. not mentioned by the participant). To be confidently labelled as “unidirectional” the two corresponding aspects should be supported and all others refuted (Table 5-6). To be confidently labelled as “facilitating” or “impeding” only one aspect should be supported and all others are refuted (see Table 5-6 for specific combinations).

However, in the current study, the majority of aspects were unknown for each

relationship because the researcher did not specifically ask about each aspect and students tended to discuss one or two aspects only. As a result, classification of relationships types in the current study were based on only partial evidence. For example, if A was found to increase B and B was found to increase A, the relationship was labelled as “positive reciprocal”; however, to truly make this classification, decreases in A should have also been found to decrease B and vice, versa. One may argue that students will spontaneously discuss the aspects most salient to them and thus the unmentioned aspects are unlikely to exist but directly asking each participant about each aspect is the only way to confirm this assumption and this should be done in future research using this method. In addition, over 80% of relationships discussed by students were positive suggesting that negative relationships are less immediately salient to students and should thus be specifically addressed by interview questions to avoid overlooking these potential aspects of the relationship.

Table 5-6. Eight potential aspects of each relationship. The combination of support and non-support for all aspects determines whether the relationship is facilitating, impeding, unidirectional, or reciprocal.				
1) increase of A increases B	positive	If (1) but not (2), facilitating	both needed for positive unidirectional relationship A -> B	all four needed for positive reciprocal relationship
2) decrease of A decreases B	positive	If (2) but not (1), impeding		
3) increase of B increases A	positive	If (3) but not (4), facilitating	both needed for positive unidirectional relationship B -> A	
4) decrease of B decreases A	positive	If (4) but not (3), impeding		
5) increase of A decreases B	negative	If (5) but not (6), impeding	both needed for negative unidirectional relationship A -> B	all four needed for negative reciprocal relationship
6) decrease of A increases B	negative	If (6) but not (5), facilitating		
7) increase of B decreases A	negative	If (7) but not (8), impeding	both needed for negative unidirectional relationship B -> A	
8) decrease of B increase A	negative	If (8) but not (7), facilitating		

Next Steps

As previously discussed, there are many benefits to case-based qualitative research and causal mapping offers an especially efficient and effective means of analyzing this data. It is highly recommended that future research implement the methodology outlined in Study 2 not only to academic motivation research, but also to research in any psychological domain. As was done in this study, future implementation of causal analysis will be most effective if interviews are concept-focused and theory driven as this will ensure the results are relevant for hypothesis testing and future theory development. It also ensures clear definitions of constructs a priori that may be verified or expanded during componential analysis. Although one goal of componential analysis is to learn how participants understand and articulate constructs in their own words, it may be helpful to provide clear definitions of constructs to participants at some point during the interview. Because students tended to repeat the two or three words used in the interview stem to refer to each construct, providing them with a thorough definition may prompt them to think more completely about each construct and offer their own opinions about the concept's current definition instead of perceiving it only as a uni-dimensional word. Further discussion with participants regarding the definitions of constructs will only strengthen componential analysis and, in addition, will ensure researcher and participant are on the same page when discussing relationships between constructs. This is especially necessary when using concepts that are conceptually similar such as competence satisfaction, academic achievement, and performance goal obtainment.

Although the current study included 10 constructs and 42 potential relationships, it is highly recommended that future research using this analysis include much fewer constructs and

relationships in order to more thoroughly address each potential relationship in the interview, including each of the 8 aspects of any one relationship (Table 5-6). As discussed, this is necessary to ensure confident labelling of each relationship based on complete information. Including fewer constructs in analysis will also make it pragmatically possible to consider three-way relationships and more thoroughly assess the mediating effects of variables. Although mediating relationships were identified and discussed in the current study, more attention should be paid to dissecting these mediators and determining in what instances they do and do not exist. When interviewing especially intellectual participants, it may even be beneficial to explain the relationship types and aspects and directly ask whether the participant experiences each one. Using a chart similar to Table 5-6 may make differentiating these aspects easier for participants. In the current study, the researcher attempted to address different aspects of the relationship using the participant's own words which provided difficult and confused participants in some cases.

It may be especially beneficial for the researcher to articulate his or her understanding of the participant's experience of each relationship to the participant during the interview in order to provide the participant with the chance to immediately correct any misconceptions. Depending on the engagement of the participant and complexity of the constructs, this may not always be possible. The researcher should also be cognizant of interviewees who speak in hypothetical terms using the ubiquitous "you"; although common in everyday communication, these phrases are difficult to code and add unnecessary complexity to analysis. Researchers should purposefully ask students to discuss their own personal experiences only and avoid responding how they expect most students would respond. Similarly, interviewers implementing this

method should always be aware of any instances of the social desirability bias and should be especially cautious when analyzing relationships that may not be perceived as socially acceptable. Finally, researchers implementing this method should note their own personal biases and be especially aware of the language they use during analysis to avoid verification biases.

In addition to inter-rater reliability coding of interview transcripts, as was done in this study, a second researcher should also provide inter-rater reliability of relationship labelling. That is, assigning primary and secondary labels to relationships based on excerpts from an interviewee's transcript is a highly involved task that requires experience, practice, and subjective judgement. Because causal mapping depends on the validity of these relationship labels, this task should be completed by multiple researchers and only relationships for which there is consensus should be considered. However, as clearly evidenced in the current study, adequate training of reliability coders is vital to obtaining true inter-rater reliability information. Reliability coders should be intimately familiar with all constructs, especially if some constructs are conceptually or phenomenologically similar. In addition to reliability coding, confirmatory testing should be conducted for any study using this method. That is, it would be gravely beneficial to repeat Study 2 with new interviewees to determine whether results are consistent. Thus, although the current methodology is presented as a superior means of uncovering psychological mechanisms, there are specific ways in which it can be improved for future use. The specific benefits of this methodology over the traditional statistical approach will now be discussed.

CHAPTER 6

GENERAL DISCUSSION

Study 1 and Study 2 each provided unique theoretical and practical contributions to motivation research and interventions. Specific contributions relevant to AGT and SDT have already been discussed in the results and discussion sections of each study along with limitations of and improvements to each study. Thus, only a high level overview of the current project's theoretical contributions and comparison of methods is provided here. To reiterate, the overarching research questions of interest to this project were:

RQ 1: Is there evidence that Drylund's (2009) integrative model, based on the conceptual framework of SDT and AGT, represents a causal mechanism responsible for academic motivation of university students?

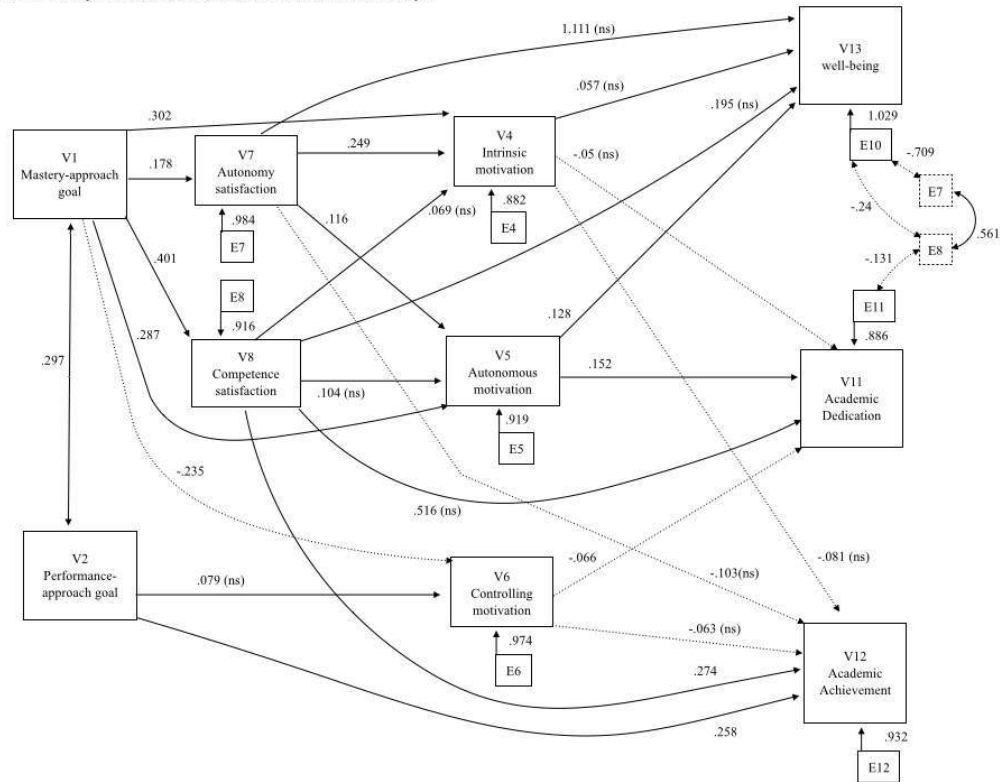
RQ 2: Which approach is more useful/capable in revealing underlying causal mechanisms within the field of psychology: a variable-based approach relying on a questionnaire analyzed using statistics (Study 1); or, a case-based approach relying on a concept-framed interview analyzed with causal mapping (Study 2)?

Each research question will now be briefly addressed by combining the results of Study 1 and Study 2.

RQ1. The Causal Mechanism Responsible for Academic Motivation

One of the goals of the current study was to provide preliminary insight into the existence and functioning of a causal mechanism that produces academic motivation within university students using an integration of AGT and SDT as an initial starting point for inquiry. A potential structural description of this mechanism was revealed by both Study 1 (Figure 4-6) and Study 2

A) Best fit Model from Study 1 that tested relations between constructs included in Study 2



B) Relationships supported by the majority of students in Study 2

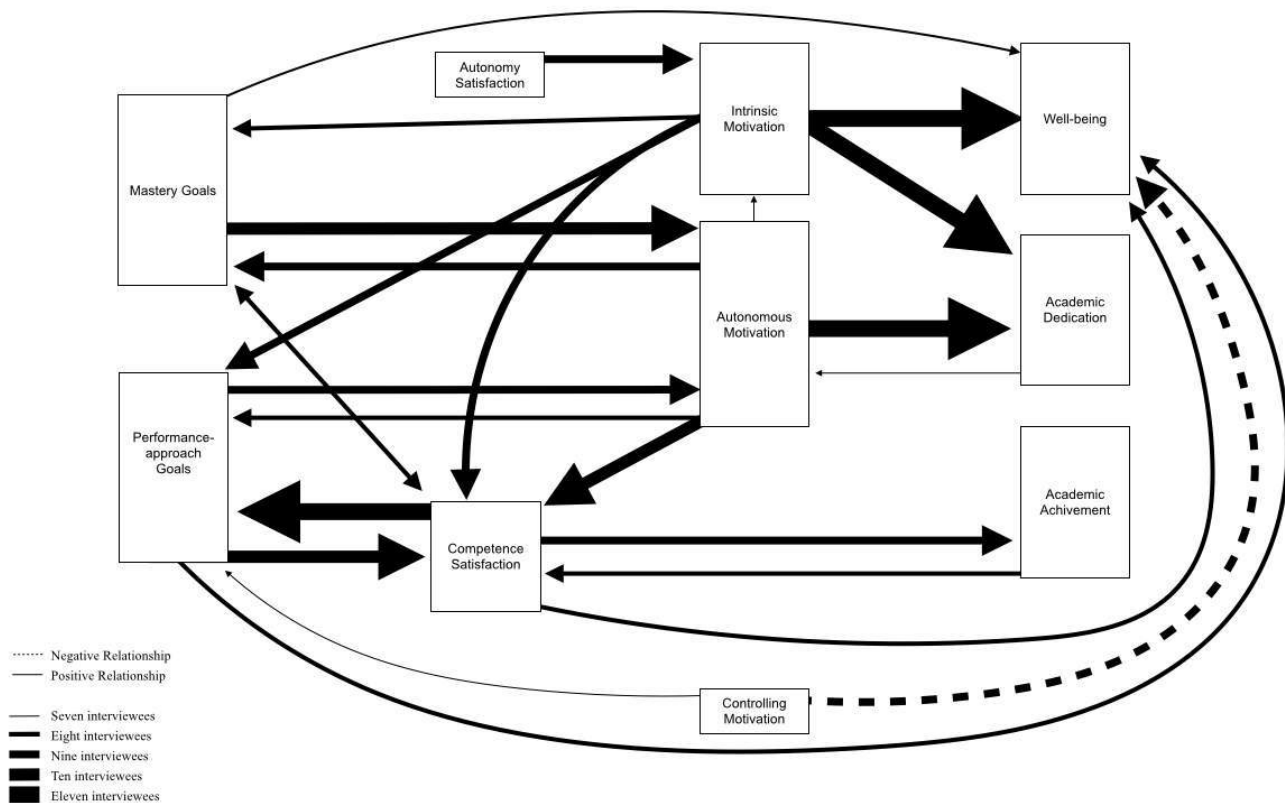


Figure 6-1. Graphic representation of relationships between constructs as determined by Study 1 (A; previous Figure 4-6) and Study 2 (B; previous Figure 5-11).

(Figure 5-11). The models representing these descriptions are each repeated in Figure 6-1 for direct comparison. The primary difference between these models, immediately apparent is the existence of reciprocal relationships in the model based on Study 2 results. This is not surprising given that Study 1 was bound by its ability to only test unidirectional relationships hypothesized a priori. The model developed through Study 1 results also contains more negative paths than the model developed through Study 2 ($n = 6$ vs 2) perhaps reflecting a bias of students to focus on positive relationships in interviews more than negative relations which are somewhat less intuitive. Finally, the model reflecting Study 1 results contains 11 statistically nonsignificant paths whereas all paths reflected in the model based on Study 2 results were experienced by the majority of students. The implications of each model regarding the suitability of integrating AGT and SDT to represent a causal mechanism that produces academic motivation will now be discussed.

Study 1 results clearly support Drylund's (2009) integrative hypothesis such that achievement goals appear to predict academic outcomes through their affects on SDT constructs of motivation. As depicted in Figure 6-1, variance in student's performance goals statistically predicts their academic achievement such that those who set performance goals are statistically likely to also have high achievement while variation in students' mastery goals does not appear to statistically predict any academic outcomes. Rather, the existence of mastery goals statistically predicts enhanced need satisfaction (autonomy and competence) as well as enhanced intrinsic and autonomous motivation but reduced controlling motivation. This enhanced competence satisfaction then directly enhances academic dedication and achievement while the enhanced autonomy satisfaction leads to increased well-being and dedication through increased

autonomous motivation. Thus, Study 2 provides these useful clues in regards to the functioning of a motivational mechanism for university students.

Study 2 results also support elements of Drylund's (2009) hypothesis but reveal a more complex integration of AGT and SDT constructs than could be tested statistically. First, motivation types did appear to have a much stronger effect on academic outcomes than mastery goals suggesting that focusing on mastery goals may primarily affect outcomes through its strong impact on autonomous motivation. However, mastery goals were also affected by competence satisfaction and intrinsic and autonomous motivation suggesting a mutually beneficial relationship rather than Drylund's notion that goal pre-exist motivation. Second, although performance goals did not directly influence achievement, they were most strongly related to competence satisfaction which was the only construct to affect achievement suggesting that the robust AGT finding that performance goals enhance achievement is likely due to an interaction with competence satisfaction. However, both of these relationships were reciprocal and competence satisfaction had a larger effect on both performance goals and achievement than these variables had on competence satisfaction again suggesting that achievement goals do not pre-exist need satisfaction. Finally, controlling motivation had a strong, negative impact on well-being but was unaffected by achievement goals or needs satisfaction and autonomy satisfaction increased intrinsic motivation. However, many of these relationships were reciprocal which will be elaborated shortly.

Therefore, Study 1 and Study 2 each support elements of Drylund's (2009) integrative hypothesis; however, when compared directly, there is little congruence between the models generated by these hypotheses. Indeed, only three relationships were consistent between the

models, only one of which was statistically significant in Study 1 (autonomy satisfaction's prediction of intrinsic motivation; prediction of intrinsic motivation and competence satisfaction on well-being was also consistent across both studies but was not significant in Study 1). An additional four relationships were supported by both models but were found to be reciprocal in Study 2 (mastery goals' affect on competence satisfaction and controlling motivation; competence satisfaction's affect on achievement; and, autonomous motivation's effect on dedication). Although it would seem that these seven relationships must be most important to the motivational mechanism, this conclusion is unjustified as each model is based on an entirely different approach and thus comparing their results is like comparing the proverbial apples and oranges.

In an attempt to statistically justify these conclusions, the model produced by Study 2 was subjected to the same path analysis procedure that was conducted in Study 1. The precise theoretical model tested is shown in Figure 6-2; to allow statistical analysis, reciprocal paths

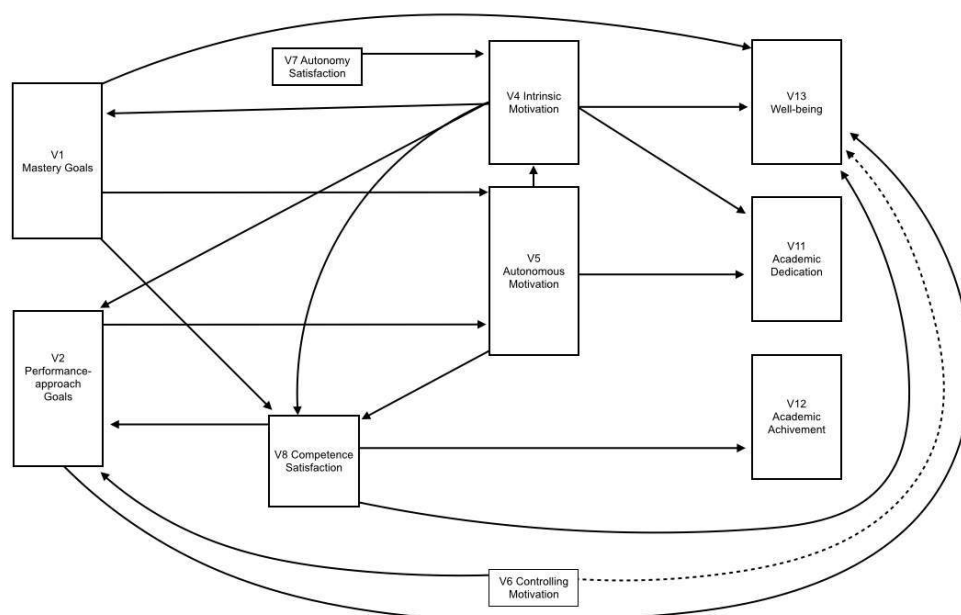


Figure 6-2. Theoretical model based on Study 2 results. Model represents relationships endorsed by majority of interviewees (adapted from Figure 5-11) with reciprocal relationships replaced by the unidirectional relationship supported by most students. This model did not fit Study 1 data, $X^2(16, N = 385) = 392.488, p < .001, sRMR = .167, CFI = .594, RMSEA = .192, NFI = .586$.

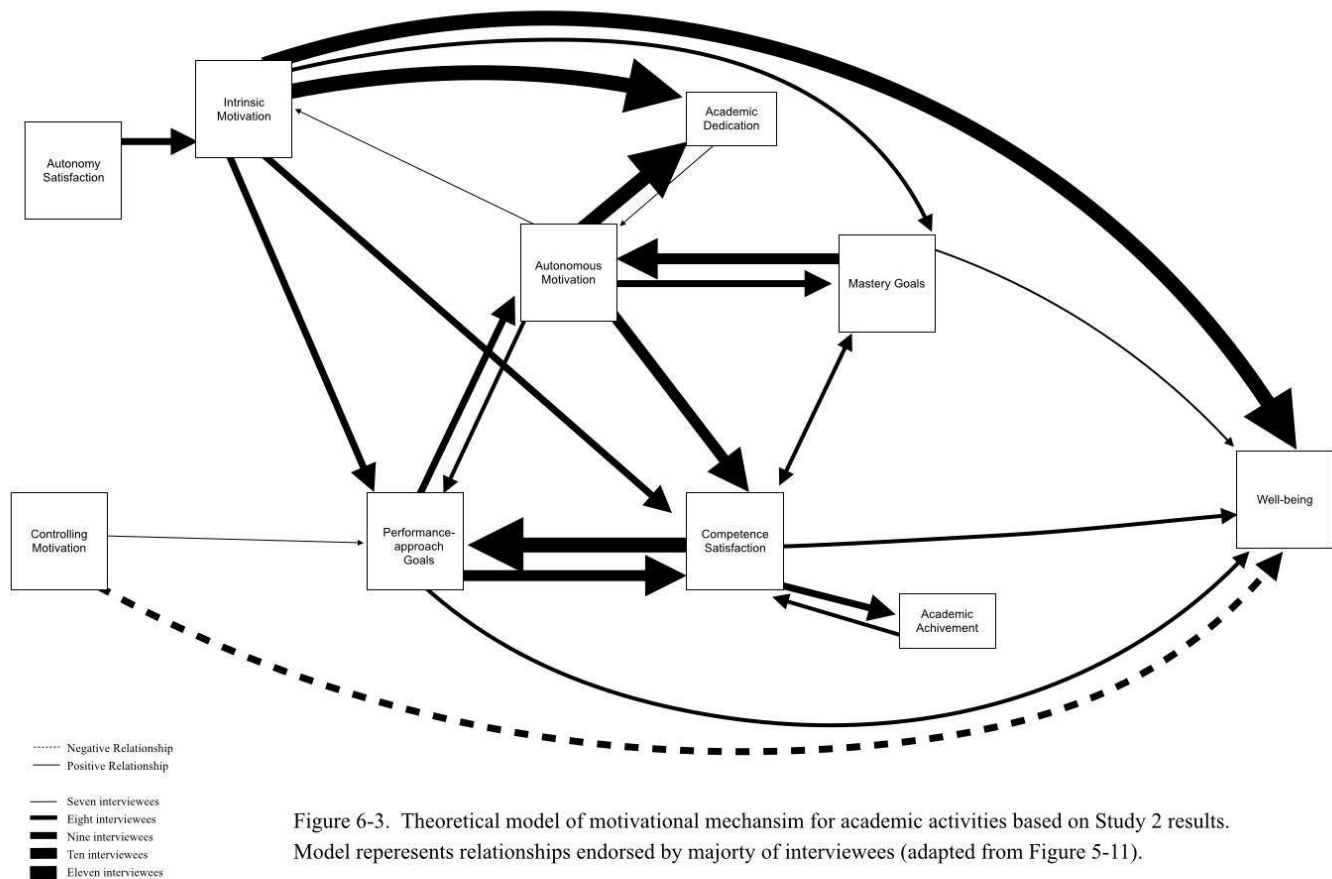
were replaced by the unidirectional path supported by most students. Only one reciprocal relationship was supported equivalently in both directions and in this case, the path from mastery goals to competence satisfaction was tested while the reciprocal path was removed as this best reflects the theory of the integrative model. This resulting model required 113 iterations to converge on a solution and did not appear to fit the data: $X^2(16, N = 385) = 392.488, p < .001$, sRMR = .167, CFI = .594, RMSEA = .192, NFI = .586. The model remained a poor fit even after correlating error variances and several attempts of adding and dropping parameters based on the Lagrange Multiplier and Wald tests. Thus, it appears the motivational model abstracted from interview data in Study 2 did not statistically fit the survey data obtained in Study 1.

Nevertheless, one can not help but believe that the model developed by Study 2 portrays a better representation of reality than the comparatively clean model produced by Study 1. Once we abandon the integrative model that was hypothesized a priori, Study 2 results become more comprehensible. Specifically, Figure 6-3 depicts the same relationships as Figure 5-11 and 6-1A (i.e. those supported by the majority of interviewees) but organizes the constructs in a more intuitive manner independent of SDT and AGT hypotheses. In this figure, the importance of controlling motivation and autonomy satisfaction becomes clear as these are the only constructs not influenced by others suggesting that whether or not one feels pressured to attend or free to make their own choices is a major indicator of how the motivational mechanism will function for that individual. Indeed, students perceived considerable conceptual similarity between low autonomy satisfaction and high controlling motivation and these constructs may even reflect ends on a continuum as oppose to entirely distinct entities.

When students freely choose to attend university and independently engage in their

courses, they personally decide to enrol in programs in which they are interested which leads to intrinsic motivation when engaging in their courses. This intrinsic motivation then directly increases their well-being, dedication, and sense of competence as well as their desire to set and ability to obtain mastery and performance goals. Contrarily, students who feel pressured to attend university and forced to engage with their courses experience poor well-being and focus solely on performance goals. Thus, the presence or absence of external pressures, self-determination, and personal interest appear to influence one's entry into the academic motivational mechanism.

However, the heart of this mechanism appears to be the complex inter-relationships between achievement goals, autonomous motivation, and competence satisfaction. Indeed, these four constructs had strong reciprocal relationships such that mastery and performance goals both



enhanced and were enhanced by autonomous motivation and competence satisfaction. Specifically, once autonomously motivated, students had a stronger desire to set both forms of achievement goals and also believed they were more likely to obtain these goals when they were autonomously motivated. Learning the material and doing well in the course also further enhanced autonomous motivation, leading to a continuous cycle of academic motivation production. To complete the cycle, forming and obtaining achievement goals also caused students to feel more competent which further improved their obtainment of goals in the future. Enhanced academic achievement was also a direct offshoot from enhanced competence satisfaction and enhanced dedication was an offshoot from autonomous motivation. Furthermore, both goal types and competence satisfaction directly impacted well-being.

Therefore, it appears the core motivational mechanism responsible for the motivation of university students relies on the reciprocal relationships between autonomous motivation, competence satisfaction, and achievement goals. Conditions in which students autonomously choose to engage in courses they are interested in and enjoy appear to be the primary facilitator of this mechanism and academic outcomes of achievement, dedication, and well-being are direct consequences of this mechanism. Thus, it appears AGT and SDT constructs are both vital to the understanding of a motivation mechanism; but, clinging to a hypothesized model theorized a priori limits our ability to conceptualize the true functioning of this model. The current theorized model (Figure 6-3), based primarily on students' personal accounts, is merely a starting point in deciphering this real, unobservable mechanism. Considerable research is still needed to fully understand how and under what conditions this mechanism optimally functions. This future research will be most valuable if conducted using a case-based approach.

RQ2. Comparison of Variable-based and Case-based Approaches

The variable-based approach used in Study 1 and the case-based approach used in Study 2 each added to the understanding of academic motivation in a complementary way. Although both are useful, these approaches differ in a number of ways which will now be directly compared to further support the argument for increased use of the case-based approach in psychological research.

Definition and Measurement of Constructs. The variable-based approach used in Study 2 relied on definitions of constructs that were formulated by researchers and imposed on participants. Each construct was measured using a discrete, 3 - 10 item scale assumed to measure the construct exhaustively and without error. Given the fluidity and context-dependent nature of motivation, goals, and academic outcomes, believing that one may capture the essence of these constructs entirely in one score ranging from one to five is absurd. Individuals would undoubtedly object to their motivation, which changes throughout the day, semester, and program, being reduced to a single score intended to reflect their whole motivation toward academic activities. In addition, social psychological constructs (e.g. need satisfaction, motivation, achievement goals, etc.) do not empirically exist but rather are socially created to describe the mechanisms underlying human behaviour (Blaikie, 2000). These constructs can not be observed directly and therefore their definitions are greatly enhanced by the critical application of multiple approaches that compliment each other to triangulate the mechanisms of interest (Danermark et al., 2001; Blaikie, 2000).

Although pre-formulated definitions were used as starting points when developing interview questions for Study 2 and as guidelines during transcript coding, the case-based

approach acknowledges that one's personal experience of the constructs may differ from these imposed definitions. Extracting construct definitions from participant responses, as was done in the componential analysis of Study 2, provides rich definitions of these constructs that are grounded within each participant's history and context. This analysis improves the theoretical understanding of the constructs which aids in theory development. However, measurement of each construct is notably more difficult and subjective using the case-based approach as this approach takes into account not only the presence or absence of each construct, but also the quality of each construct as experienced by each participant. For consistency, it is essential that researchers implementing this form of case-based analysis are familiar with the theoretical definitions of constructs despite the ability of this approach to expand these definitions.

Units of Analysis. The variable-based vs. case-based debate is fuelled by the contradictory way in which the individual is regarded in psychological research. While the individual is clearly the unit at which psychological knowledge is intended to apply, the vast majority of psychological findings are generated from aggregating data on various psychological variables across large groups of individuals (Valsiner, 1986; Barlow, 2009). By the rules of mathematics, these aggregate data apply only to the hypothetical, non-existent, "average individual" and thus it adds nothing to the understanding of the psychological functioning of any one individual participant (Barlow, 2009; Lamiell, 2013; Valsiner, 1986). However, many ignore this fact and report statistical findings as though they directly explain the motivation within any one individual; as previously mentioned, this fallacy and the resulting over reliance on statistical analysis is termed "statisticism" (Lamiell, 2013).

Specifically, in Study 1, the unit of analysis was an abstract, variable-based statistical

model based on the variables' covariances between survey participants. Although useful in highlighting surface level correlations, the models resulting from this variable-based approach bear little resemblance to the reality in which motivation actually appears to exist within university students. Contrarily, the unit of analysis in Study 2 was living individuals; thus, each data set in Study 2 reflects a unique reality of one individual's motivation, including his or her history and current academic context. Therefore, the units of analysis used in Study 2 are a better reflection of psychological constructs and mechanisms that exist and are experienced within individuals.

Individual Differences and Generalizing. The variable-based approach used in Study 1 relies on statistical analysis which averages all data between individuals. Thus, exceptions, outliers, and various individual differences are not accounted for in analysis and are reduced to error, noise, or not believed to significantly affect the motivational model. As a result, motivational reality is “polished out” in order to meet requirements for statistical analysis. Contrarily, individual differences naturally emerge through case-based analysis, revealing important insights into the nature and dynamics of academic motivation. For example, some participants appeared to be in an autonomous, self-regulated state and could clearly articulate their goals and motives while others were unable to differentiate motivational constructs and provided inconsistent responses throughout their interviews, suggesting that the dynamic motivational mechanism may develop in students over time. This insight, and others based on individual differences, can not be revealed through statistical analysis alone.

Although the context specificity and individual difference between students prevents case-based data from being generalized to all students, explanations resulting from case-based

data are based on strategically chosen cases (i.e. students with exceptionally high scores on certain survey items) and thus can be generalized to other students in similar contexts (Flyvbjerg, 2006). Furthermore, despite the individual variations, the relationships uncovered through Study 2 can refer to a universal mechanism of academic motivation because of the real (and not statistical) nature of these relationships. However, some degree of abstraction is needed when analyzing case-based data between individuals in order to distill complex generative mechanisms to their most basic components or skeletal structure. For example, Study 2 results reported all relationships experienced by interview participants but only relationships mutually supported by the majority of students were used to directly address RQ1. Although important data regarding individual differences is neglected in this abstraction, it is necessary to pragmatically make use of the abundant data.

Types of Relationships Revealed and Determining Causality. As discussed in detail in the Study 2 methods section, four types of relationships were identified through case-based analysis: conceptual similarity, contextual, reciprocal, and unidirectional. Reciprocal and unidirectional relationships were further differentiated with six possible secondary labels: positive, negative, conditional, facilitating, impeding, and mediating. This information provides interesting insights that present a complex structure of motivational dynamics that is impossible to capture using statistical methods. Specifically, the variable-based approach relies on the General Linear Model which only reveals correlations between variables; determining the quality of these relationships is beyond the scope of this approach. Thus, qualitative, case-based methods are needed to study causal mechanisms as they can not be observed and thus statistical analysis can not be used to infer their causal relationships (Ackroyd, 2009; Danermark et al.,

2001). The large array of relationships identified only through case-based analysis is a closer reflection of the real relationships that exist in the everyday lives of individuals and better reflects the dialectical nature of a motivational mechanism. In addition, case-based analysis can be used to support causal relationships while these conclusions violate the assumptions of variable-based analysis.

Theory Development. Although the variable-based approach is necessary to establish statistical regularities, it is limited in its ability to explain ‘why’ and ‘how’ motivation functions. Therefore, a motivation theory formed entirely through this approach is incomplete as it consists only of statements regarding statistical relations among variables. Contrarily, the case-based approach allows researchers to understand ‘how’, ‘why’, and under what conditions participants experience different forms of motivation which is necessary when formulating theories regarding the mechanisms of academic motivation. Thus, the case-based approach is necessary to develop a complete theory of motivation as it provides researchers with more thorough information on which to base reproductive inferences into a unobservable mechanism of academic motivation. However, confirmatory testing and replication are as important to the case-based approach as the variable-based approach and thus a hypothesized mechanism developed through the case-based approach is merely a hypothesis until sufficient replication has occurred to support true theory development.

Utility of Results for Prediction and Behaviour Change. Statisticism has resulted in the variable-based approach becoming the most dominant approach in psychology as it provides the illusion that theories are universal and can predict any individual's behaviour (Flyvbjerg, 2006; Lamiell, 2013). However, as previously discussed, all psychological mechanisms exist in open

systems and are continuously influenced by countless variables unique to individuals; as a result, predictive theories and universals do not exist in psychology and the search for such is vain and unproductive (Flybvjerg, 2006). That is, all psychological mechanisms exist within a specific context and thus context-dependent, case-based knowledge is more valuable than the statistical analysis of variables stripped of their situational context (Flybvjerg, 2006; Valsiner, 1986).

The case-based approach, which involves studying individual participants with internally valid methods and replication, is the best way to obtain this context-dependent knowledge and to establish causal relations among variables for hypothesis testing (Barlow, 2009; Flybvjerg, 2006). For example, the seminal behavioural psychologist BF Skinner (1966) stated: “instead of studying a thousand rats for one hour each or a hundred rats for ten hours each, the investigator is more likely to study one rat for a thousand hours” (p.21), indicating his belief that the idiographic approach is most illuminating and valuable for applied psychological research. Indeed, Study 2 revealed useful relationships between variables that can logically be used to predict and influence the academic motivation of other undergraduate student. This information, revealed through detailed study of only 12 individual students proved more useful than the statistical information received by surveying 385 students.

Conclusion

Although survey methods are useful to establish statistical regulations among the empirically measured variables and provide possible descriptions of a mechanism, current academic motivation research suffers from “statisticism” and relies almost exclusively on this approach (Lamiell, 2013). An alternative, case-based approach was used in the current study and offered improvements in the definition and measurement of constructs, types of relationships

revealed, and ability to enhance theory development by accounting for individual differences and including units of analysis in accordance with psychology's goals. Thus, the results of this case-based approach are expected to be more useful in predicting and influencing academic motivation than the results of existing variable-based research.

Therefore, the current research supports the critical realist belief that the variable-based approach has exhausted its capacities and should be complemented or replaced by the case-based, idiographic approach rooted in the realist paradigm. This approach is the next logical step in motivation research and should be applied to all research domains in order to increase theory development and the usefulness of applications based on these theories. The causal mapping method used in Study 2 provides a useful template by which additional psychological research from the critical realist perspective may be conducted. However, to abide by the realist's *critical methodological pluralism* (Danemark, 2002), interviews should be complemented by further case-based research such as observations, fieldwork, ethnography and other relevant methods. These complementary methods will allow further retroduction into the unobservable powers and generative forces that form the statistical regularities thus providing deeper insight into the nature of academic motivation and other psychological phenomena.

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Appendix A: Theoretical and Operational Definitions of all Constructs

Construct	Theoretical Definition	Operational Definition: Survey	Operational Definition: Interview	Additional Information
Mastery-Approach Goal	A dynamic cognitive aim that focuses on the acquisition and development of competence, increasing understanding, and improving skills (Elliot & Murayama, 2008; Senko, Hulleman, Harackiewicz, 2011).	Average score on the 3 survey items: 1) My aim is to completely master the material presented in my courses; 2) My goal is to learn as much as possible in my courses; 3) I am striving to understand the content of my courses as thoroughly as possible.	Response to one of the following question wordings: “on the survey, you indicated that you [really strive / do not strive] to understand the material in your courses and learn as much as possible, could you talk about this?”	<ul style="list-style-type: none"> - All survey items were adapted from the Achievement Goal Questionnaire-Revised (AGQ-R); the AGQ-R does not contain the conceptual and psychometrical problems associated with the AGQ (see Elliot & Murayama, 2008 for a complete review) - All items were adapted to reflect one’s undergraduate goals as opposed to specific course goals. - One’s score is the average of their responses for each item in the sub-scale with a high score (max 5) representing the possession of many goals of that type and a low score (min 1) representing few goals of that type. - In previous research, each sub-scale has proven high internal consistency; Cronbach alphas of .84, .92 and .94 for mastery-approach, performance-approach, and performance-avoidance goals respectively (Elliot & Murayama, 2008) - The AGQ-R is widely used in AGT research and validity is consistently supported (Chiang, Yeh, Lin, & Hwang, 2011; Ciani, Sheldon, Hilpert, and Easter, 2011; Cho, Weinstein, & Wicker, 2011) - Cross-cultural validity also supported (Chiang et al., 2011). - Original and adapted items are given in Appendix B. - Interview questions on mastery and performance goals were preceded by the general question: “When you are engaging in academic activities, what are some of the goals you set for yourself?”; responses to this original question influenced the specific follow-up questions asked - Two wordings of each follow-up interview question were prepared depending on the student’s survey scores (i.e. “...you did not appear as though your main goal was...” vs. “you indicated that you really strive to...” - All possible interview questions are given in Figure 5-1 - Responses to any other interview question that appeared to reflect achievement goals were also coded as such; further discussion on how performance goals were coded in the current study and understood by interviewees is given in the Between-case Analysis section (pg. 127 - 134)
Performance-Approach Goal	A dynamic cognitive aim that focuses on the demonstration of normative competence (Elliot & Murayama, 2008; Senko, et al., 2011). Specifically, an aim to outperform or possess greater ability than others.	Average score on the 3 survey items: 1) I am striving to do well compared to other students in my courses.; 2) My aim is to perform well relative to other students in my courses; 3) My goal is to perform better than the other students in my courses.	Response to one of the following question wordings: “on the survey, you indicated that you [really strive / do not strive] to do better than other students in your class - can you talk about this?”	
Performance-Avoidance Goal	A dynamic cognitive aim that focuses on avoiding the demonstration of normative incompetence (Elliot & Murayama, 2008; Senko, et al., 2011). Specifically, an aim to avoid doing worse than others.	Average score on the 3 survey items: 1) My goal is to avoid performing poorly compared to other students in my courses; 2) I am striving to avoid performing worse than other students in my courses; 3) My aim is to avoid doing worse than other students in my courses	Not included in Study 2: Interview	

Intrinsic Motivation of Academic Behaviour	The drive to pursue an academic activity because of interest, curiosity, or a desire to learn new things (Fairchild, Horst, Finney & Barron, 2005).	Score on 3 items from the SRQ-A reflecting the degree to which student attends lectures, completes work, and studies material "because it is fun"	Response to one of the following questions: "You indicated in the survey that you derive a lot of interest and enjoyment from your academic activities, could you describe this? What do you find interesting and enjoyable? Can you describe a situation that you find especially interesting or enjoyable?" OR "Some students indicate that they derive a lot of interest and enjoyment from their academic activities, but you did not - can you discuss this? Do you find anything interesting and enjoyable?"	<ul style="list-style-type: none"> - The Self-Regulation Questionnaire for Academic Practices (SRQ-A) was created for this study by adapting the SRQ for Cultural Practices used by Chirkov, Ryan, Kim and Kaplan in 2003. - In an American student sample, Chirkov et al. (2003) found the reliability coefficients of each sub-scale of the SRQ-C to be between .69 and .86. They did not include an Intrinsic Motivation sub-scale, but the use of this type of scale to measure intrinsic motivation has been validated elsewhere (Sheldon & Houser-Marko, 2001). - Participants are given five potential reasons as to why one may engage in an academic behaviour and presented with three academic behaviours: attending lectures, competing course work, and studying course material. Respondents must indicate the degree to which each reason applies to their engagement in the behaviour (1 = Not at all because of this reason, 5 = Completely because of this reason). Complete instructions are given in Appendix C. - Thus, there are 15 items total (5 reasons x 3 behaviours). - Two reasons reflect controlling motivation, two reflect autonomous, and one reflects intrinsic motivation; therefore the average of one's responses to these items is their score for this type of motivation. - For all sub-scales, a high score (max 5) represents high motivation of that type and a low score (min 1) represents low motivation of that type.
Autonomous Motivation of Academic Behaviour	The drive to engage in an academic activity because one finds it personally important and intentionally chooses to engage in it, after thorough consideration of different options (Ratelle, Guay, Vallerand, Larose & Senecal, 2007)	Score on 6 items from the SRQ-A reflecting the degree to which student attends lectures, completes work, and studies material "because it is important" and "because it is thoughtfully considered and fully chosen"	Response to one of the following questions: "You indicated that you feel academic activities are important and that you freely choose to engage in them after thorough consideration - could you discuss this? Why do you feel they are important?" OR "Some students indicate that engaging in academic activities is important to them and that they freely choose to do so, but you did not - could you elaborate on this?"	<ul style="list-style-type: none"> - Interview questions on motivation types were preceded by the general question: "In your own words, why do you engage in academic activities?"; responses to this original question influenced the specific follow-up questions asked - Two wordings of each follow-up question were prepared depending on whether the student scored high or low on the variable in the survey - All possible interview questions are given in Figure 5-1 - Responses to any other interview question that appeared to reflect motivation types were also coded as such; further discussion on how motivation types were coded in the current study and understood by interviewees is given in the Between-case Analysis section (pg. 100-114)
Controlling Motivation of academic behaviour	The drive to engage in an academic activity because one feels forced to in order to avoid punishment, please others, or receive a reward (Ratelle et al., 2007).	Score on 6 items from the SRQ-A reflecting the degree to which student attends lectures, completes work, and studies material "because of external pressures (rewards or punishments)" and "to get approval or avoid guilt"	Response to one of the following questions: "You indicated that you feel socially pressured to engage in academic activities - can you discuss this? who or what makes you feel pressured? in what way does this person/thing pressure you?" OR "Some students indicate that they feel socially pressured to engage in academic activities but you did not - can you discuss this?"	

Satisfaction of the Psychological Need for Autonomy	Based on SDT, the degree to which one's basic psychological need for <i>autonomy</i> , the need to be the origin of one's own behaviour, is satisfied (Vansteenkiste, Lens, Soenens, & Luyckx, 2006).	Score on the 7 item autonomy subscale from the BNS (all items in Appendix B; sample items: "I generally feel free to express my ideas and opinions", "I feel like I can pretty much be myself in my daily situations")	Response to one of the following question wordings: "you indicated that at university, you [do / do not] feel free to make your own choices and be yourself - could you elaborate on this? why do you think this is?"	<ul style="list-style-type: none"> - The Basic Need Satisfaction Scale (BNS) is frequently adapted to suit the specific context of a study. Versions exist to assess need satisfaction in sport, exercise, work, and relationships - The original BNS and various versions are frequently used and have retained high internal consistency (Drylund, 2009; Vansteenkiste et al., 2006; Ciani et al., 2011; Gagne, 2003; Deci, Ryan, Gagne, Leone, Usnov, & Kornazheya, 2001). - The BNS used in this study was adapted to reflect basic need satisfaction at University. - Subscale scores are the average of responses to each item. Thus, a high score (max 5) represents high need satisfaction and a low score (min 1) represents low need satisfaction. - Appendix B lists original and adapted BNS items - Two wordings of each interview question were prepared depending on whether one scored high or low on the variable in the survey - All possible interview questions are given in Figure 5-1 - Responses to any other interview question that appeared to reflect psychological needs were also coded as such; further discussion on how psychological needs were coded in the current study and understood by interviewees is given in the Between-case Analysis section (pg. 114-123)
Satisfaction of the Psychological Need for Competence	Based on SDT, the degree to which one's basic psychological need for <i>competence</i> , the need to feel proficient and effective is satisfied (Vansteenkiste, Lens, Soenens, & Luyckx, 2006).	Score on the 6 item competence subscale BNS (all items in Appendix B; sample items: "people I know tell me I am good at what I do", "most days I feel a sense of accomplishment from what I do", "I have been able to learn interesting new skills recently")	Response to one of the following question wordings: "you indicated that you [do / do not] feel competent and capable of doing well at university - could you elaborate on this? why do you think you feel this way?"	

Academic Dedication	The degree to which one intends to complete a university degree.	<p>2012: response to 2 items: “I often consider dropping out of school” (reverse scored) and “I fully intend to complete a university degree.”</p> <p>2013: response to 5 item scale (all items in Appendix B; sample item: “it is important for me to graduate from university.”)</p>	Response to one of the following question wordings: “on the survey, you indicated that you [fully intend to / do not intend to] complete your degree and do not consider dropping out - can you elaborate on this?”	<p>-2012 items predicted actual drop out rates among high school students in Vallerand et al’s (1997) study but were not ideal for a university sample as they do not reflect students who do not intend to complete their current university degree but do intend to complete some university program (e.g. be accepted into a professional college)</p> <p>- 2013 items reflect a broader concept of dedication and integration deemed more appropriate for the current study</p> <p>- In both cases, one’s score is the average of their responses on the items with a low score (min = 1) indicating low dedication and a high score (max = 5) indicating high dedication.</p> <p>- Two wordings of each interview question were prepared depending on whether one scored high or low on dedication in the survey</p> <p>- All possible interview questions are given in Figure 5-1</p> <p>- Responses to any other interview question that appeared to reflect dedication were also coded as such; further discussion on how psychological needs were coded in the current study and understood by interviewees is given on (pg. 140 - 143)</p>
Academic Achievement	One’s current undergraduate grade point average.	Response to: “What was your overall academic average during your previous semester of university?”, answered on a 5-point Likert scale: 1 = < 60%, 2 = 60-70%, 3 = 71-80%, 4 = 81-90%, and 5 = > 90%	One was not directly asked about their academic achievement in the interview; however, any response to other questions that appeared to reflect subjective or objective achievement were coded as such.	<p>- Assessed by one item developed by researcher</p> <p>- Although discrepancy between self-report and school-record GPA has been documented (Zimmerman, 2005), school-record GPA was not obtainable in this study and therefore self-report GPA was used</p> <p>- It is hoped that any conflation between recorded and self-report GPA is relative among all students</p>
Psychological Well-Being	A multifaceted concept encompassing positive self-regard, master of the surrounding environment, quality relations with others, continued growth and development, purposeful living, and the capacity for self-determination (Ryff & Keyes, 1995).	Score on the 18 item PWS (Appendix B)	<p>To avoid conceptual confusion, PWB and SWB were combined in Study 2: Interview; however, elements of SWB were a greater focus than elements of PWB.</p> <p>Response to one of the following question wordings: “from the survey, I see that in</p>	<p>- see Appendix B for all items of the PWS, SWLS, and PANAS</p> <p>- The Psychological Well-Being Scale (PWS) assess well-being at a particular moment within 6 dimensions: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self acceptance; Ryff and Keyes (1995) validated the PWS on a nationally representative sample and have been cited over 1580 times. One’s score is the average of their responses with a high score (max 5) indicating greater well-being and a low score (min 1) indicating lower well-being.</p> <p>- The 5-item Satisfaction with Life Scale (SWLS) has consistently and frequently demonstrated valid and reliable measurement of general life satisfaction (Diener, et al.1985).</p>

Subjective Well-being	A person's cognitive and affective evaluation of their life. Includes components of pleasure, life satisfaction, positive affect, and an absence of negative affect (Diener, 2000)	Combination of scores on the SWLS and the PANAS such that both scales are given equal weight and the Negative Affect portion of the PANAS is reverse scored (Appendix B)	general you are [pretty / not] satisfied with your life and have a lot of [positive / negative] feelings - do you think this is at all related to the types of goals you set or your motives for engaging in a cadmic activities?"	<p>-The Positive Affect and Negative Affect Scale (PANAS) has demonstrated valid, reliable, and precise measurement of Positive Affect (PA) and Negative Affect (NA; Diener & Emmons, 1985); it lists 20 emotions and asks respondents to indicate the extent to which they generally feel each emotion on (1 = very slightly or not at all, 5 = extremely).</p> <p>- one's SWB score is the average of their scores on the SWLS, PA and NA(reverse scored); therefore, a high score (max 5) indicates high subjective well-being and a low score (min 1) indicates low subjective well-being.</p> <p>- Two wordings of each follow-up question were prepared depending on whether the student scored high or low on well-being</p> <p>- All possible interview questions are given in Figure 5-1</p> <p>- Responses to any other interview question that appeared to reflect well-being were also coded as such; further discussion on how motivation types were coded in the current study and understood by interviewees is given in the Between-case Analysis section (pg 138 - 140)</p>
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Appendix B: Original and Modified Scales and Measures

Achievement Goals

Achievement Goal Questionnaire Revised: Elliot, A. & Murayama, K. (2008). On the measurement of achievement goals: Critique, illustration, and application. *Journal of Educational Psychology*, 100:3, 613-628.

Modified AGQ-R as it appeared in the current study:

1. My aim is to completely master the material presented in my courses. (Mastery-Approach Goals)
2. I am striving to do well compared to other students in my courses. (Performance-Approach Goals)
3. My goal is to learn as much as possible in my courses. (Mastery-Approach Goals)
4. My aim is to perform well relative to other students in my courses. (Performance-Approach Goals)
5. My goal is to avoid performing poorly compared to other students in my courses. (Performance-Avoid. Goals)
6. I am striving to understand the content of my courses as thoroughly as possible. (Mastery-Approach Goals)
7. My goal is to perform better than the other students in my courses. (Performance-Approach Goals)
8. I am striving to avoid performing worse than other students in my courses. (Performance-Avoidance Goals)
9. My aim is to avoid doing worse than other students in my courses. (Performance-Avoidance Goals)

Original AGQ-R:

1. My aim is to completely master the material presented in this class. (Mastery-Approach Goals)
2. I am striving to do well compared to other students. (Performance-Approach Goals)
3. My goal is to learn as much as possible. (Mastery-Approach Goals)
4. My aim is to perform well relative to other students. (Performance-Approach Goals)
5. My aim is to avoid learning less than I possibly could. (Mastery-Avoidance Goals,)
6. My goal is to avoid performing poorly compared to others. (Performance-Avoidance Goals)
7. I am striving to understand the content of this course as thoroughly as possible. (Mastery-Approach Goals)
8. My goal is to perform better than the other students. (Performance-Approach Goals)
9. My goal is to avoid learning less than it is possible to learn. (Mastery-Avoidance Goals,)
10. I am striving to avoid performing worse than others. (Performance-Avoidance Goals)
11. I am striving to avoid an incomplete understanding of the course material. (Mastery-Avoidance Goals,)
12. My aim is to avoid doing worse than other students. (Performance-Avoidance Goals)

Autonomy and Competence Satisfaction

Basic Psychological Needs Scale: Deci, Ryan, Gagne, Leone, Usnov, & Kornazheya, 2001; the original BPNS also includes items assessing satisfaction of the need for relatedness, but these items are not included in the current study. The original BPNS and various versions are frequently used and have retained high internal consistency (Drylund, 2009; Vansteenkiste et al., 2006; Ciani et al., 2011; Gagne, 2003).

Modified BPNS as it appeared in the current study:

1. I feel like I am free to decide for myself how to engage with my courses.
2. Often, I do not feel very competent at university.
3. I feel pressured at university.
4. People I know tell me I am good at what I do in university.
5. I generally feel free to express my ideas and opinions at university.
6. I have been able to learn interesting new skills recently at university.
7. At university, I frequently have to do what I am told.
8. Most days I feel a sense of accomplishment from what I do at university.
9. People I interact with on a daily basis at university tend to take my feelings into consideration.
10. At university I do not get much of a chance to show how capable I am.
11. I feel like I can pretty much be myself in my daily situations at university.
12. I often do not feel very capable at university.
13. There is not much opportunity for me to decide for myself how to do things at my university.

Original items of general basic need satisfaction scale:

1. I feel like I am free to decide for myself how to live my life.
2. Often, I do not feel very competent.
3. I feel pressured in my life.
4. People I know tell me I am good at what I do.
5. I generally feel free to express my ideas and opinions.
6. I have been able to learn interesting new skills recently.
7. In my daily life, I frequently have to do what I am told.
8. Most days I feel a sense of accomplishment from what I do.
9. People I interact with on a daily basis tend to take my feelings into consideration.
10. In my life I do not get much of a chance to show how capable I am.
11. I feel like I can pretty much be myself in my daily situations.
12. I often do not feel very capable.
13. There is not much opportunity for me to decide for myself how to do things in my daily life.

Items 1, 3(R), 5, 7(R), 9, 11, 13(R) represent satisfaction of the need for autonomy

Items 2(R), 4, 6, 8, 10(R), 12(R) represent satisfaction of the need for competence

* (R) = reverse scored

Motivation Types

Self-Regulation Questionnaire For Academic Practices (SRQ-A) adapted from the Self-Regulation Questionnaire for Cultural Practices (SRQ-C): Chirkov, Ryan, Kim, & Kaplan, 2003; See page 3 of Appendix C for thorough instructions given to students.

Please rate the degree to which each of the five reasons described above applies to each academic behavior. Use the following scale:

Not at all because of this reason		Somewhat because of this reason		Completely because of this reason
1	2	3	4	5

Why do you attend the lectures for courses you are enrolled in?

1. Because of External Pressures (Rewards or Punishments).
2. To Get Approval or Avoid Guilt.
3. Because It is Important.
4. Because It Is Thoughtfully Considered and Fully Chosen.
5. Because It is Fun.

Why do you complete the work (i.e. assignments, papers, quizzes, etc.) that is given to you in your courses?

6. Because of External Pressures (Rewards or Punishments).
7. To Get Approval or Avoid Guilt.
8. Because It is Important.
9. Because It Is Thoughtfully Considered and Fully Chosen.
10. Because It is Fun.

Why do you study the material presented in your courses?

11. Because of External Pressures (Rewards or Punishments).
12. To Get Approval or Avoid Guilt.
13. Because It is Important.
14. Because It Is Thoughtfully Considered and Fully Chosen.
15. Because It is Fun.

Reasons 1 and 2 assess controlling motivation, reasons 3 and 4 assess autonomous motivation, and reason 5 assesses intrinsic motivation.

Outcome Variables

The Satisfaction with Life Scale (SWLS): Diener, E., Emmons, R.A., Larsen, R.J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49:1, 71-75.

- | | |
|--|---|
| 1. In most ways my life is close to my ideal | 4. So far I have gotten the important things I want in life |
| 2. The conditions of my life are excellent | 5. If I could live my life over, I would change almost nothing. |
| 3. I am satisfied with my life | |

The Positive Affect and Negative Affect Scale: Diener, E., & Emmons (1985). The independence of positive and negative affect. *Journal of Personality and Social Psychology*, 47:5, 1105-1117.

This Scale consists of a number of words that describe different feelings and emotions. Please indicate to what extent you generally feel this way, that is, how you feel on the average. Use the following scale:

1	2	3	4	5
Very slightly	A little	Moderately	Quite a bit	Extremely
Or not at all				

To what extent do you generally feel...

- | | | | |
|-------------------|--------------------|-------------------|--------------------|
| 1 ... interested? | 6 ... guilty? | 11 ... irritable? | 16 ... determined? |
| 2 ... distressed? | 7 ... scared? | 12 ... alert? | 17 ... attentive? |
| 3 ... excited? | 8 ... hostile? | 13 ... ashamed? | 18 ... jittery? |
| 4 ... upset? | 9 ... enthusiastic | 14 ... inspired? | 19 ... active? |
| 5 ... strong? | 10 ... proud? | 15 ... nervous? | 20 ... afraid? |

Psychological Well-Being Scale: Ryff, C.D., & Keyes, C.L.M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69, 719-727

1. I judge myself by what I think is important, not by what others think is important.
2. I am quite good at mastering the many responsibilities of my daily life.
3. I have given up trying to make big improvements or changes in my life.
4. I have not experienced many warm and trusting relationships with others.
5. I sometimes feel that I've done all there is to do in life.
6. In many ways, I feel disappointed about my achievements in life.
7. I have confidence in my own opinions, even if they are contrary to the general consensus.
8. The demands of everyday life often get me down.
9. For me, life has been a continuous process of learning, changing, and growth.
10. People would describe me as a giving person, willing to share my time with others.
11. Some people wander aimlessly through life, but I am not one of them.
12. I like most aspects of my personality.
13. I tend to be influenced by people with strong opinions.
14. In general, I feel I am in charge of the situation in which I live.
15. I think it is important to have new experiences that challenge how you think about yourself and your world.
16. Maintaining close relationships has been difficult and frustrating for me.
17. I live life one day at a time and don't really think about the future.
18. When I look at the story of my life, I am pleased with how things have turned out.

Self-acceptance	7	12	18
Positive relations	4r	10	16r
Autonomy	1	13r	14
Environment mastery	2	6r	8r
Purpose in Life	3r	11	17r
Personal Growth	5r	9	15

r = reverse coding.

Academic Dedication

Used for first sample in 2012 (n = 97); adapted from Vallerand, Fortier, & Guay, 1997:

1. I often consider dropping out of school. *
2. I fully intend to complete a university degree.

Used for subsequent samples in 2013 (n = 288):

1. I am sure that I will get a university degree.
2. It is important for me to graduate from university.
3. I often think that finishing my degree is not worth all the effort and hassle.*
4. Finishing my degree is an important step in achieving my educational or career goals.
5. I'm not sure whether I want to come back to university next year.*

* reverse scored

Appendix C: Survey Package

Appendix C: Survey Package

1

Survey Instructions

Please complete the following survey by filling in the corresponding standard response sheet. If at any time you have any questions, please feel free to ask the researcher. The survey contains 6 sections and 104 items total. It should take approximately 25 minutes to complete.

1. General Attitudes

Please use the scale below to indicate the extent to which you agree or disagree with the following statements.

1	2	3	4	5
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

* Note: do not use the "0" column on the standardized response sheet

1. I judge myself by what I think is important, not by what others think is important.
2. I am quite good at mastering the many responsibilities of my daily life.
3. I have given up trying to make big improvements or changes in my life.
4. I have not experienced many warm and trusting relationships with others.
5. I sometimes feel that I've done all there is to do in life.
6. In many ways, I feel disappointed about my achievements in life.
7. I have confidence in my own opinions, even if they are contrary to the general consensus.
8. The demands of everyday life often get me down.
9. For me, life has been a continuous process of learning, changing, and growth.
10. People would describe me as a giving person, willing to share my time with others.
11. Some people wander aimlessly through life, but I am not one of them.
12. I like most aspects of my personality.
13. I tend to be influenced by people with strong opinions.
14. In general, I feel I am in charge of the situation in which I live.
15. I think it is important to have new experiences that challenge how you think about yourself and your world.
16. Maintaining close relationships has been difficult and frustrating for me.
17. I live life one day at a time and don't really think about the future.
18. When I look at the story of my life, I am pleased with how things have turned out.
19. In most ways my life is close to my ideal.
20. The conditions of my life are excellent
21. I am satisfied with my life.
22. So far I have gotten the important things I want in life.
23. If I could live my life over, I would change almost nothing.

1	2	3	4	5
Strongly Disagree	Disagree	Uncertain	Agree	Strongly

24. Even if there is a reason for doing so, one may not rely on an old people's home to provide for one's aged parents
25. Any sacrifice is worthwhile for the sake of respecting one's parents
26. The great debt that you have to repay your parents is as boundless as the sky
27. No matter how their parents conduct themselves, sons and daughters must respect them
28. After the father has passed away, sons and daughters must conduct themselves according to the principles and attitudes he followed while he was still living
29. If there is a quarrel between one's wife and one's mother, the husband should advise his wife to listen to his mother
30. Sons and daughters have to seek parental advice and may not make their own decisions
31. After children have grown up, all the money they earn through their own labour belongs to themselves, even though their parents are still living
32. As a son or daughter, one must obey one's parents no matter what

2. Evaluation of Everyday Behaviours

In your opinion, what do most people in your country think about these behaviours, beliefs, and feelings?

They think that it is:

1	2	3	4	5
Not at all Important		Somewhat Important		Very Important

33. To help a relative (within your means), if the relative has financial problems.
34. To maintain harmony within any group that one belongs to.
35. To do something to maintain coworkers'/classmates' well-being (such as caring for them or emotionally supporting them).
36. To consult close friends and get their ideas before making a decision.
37. To share little things (tools, kitchen stuff, books, etc.) with one's neighbors.
38. To cooperate with and spend time with others.
39. To do "one's own thing."
40. To rely on oneself most of the time and rarely rely on others.
41. To behave in a direct and forthright manner when having discussions with people.
42. To depend on oneself rather than on others.
43. To believe that what happens to people is their own doing.
44. To cultivate a personal identity, independent of others.

3. Reasons for University Behaviours

Instructions (Do not respond until question #45 on the following page)

People may be motivated to do something for many different reasons. Below are descriptions of three academic behaviors and five possible reasons that you may engage in these behaviors. Some of these reasons may be very applicable to your academic experience while others may not be at all applicable. That is why we ask you to rate these behaviors in terms of each of the following six reasons.

Thorough descriptions of each reason are given below as well as an example using the question: Why do you attend the lectures for courses you are enrolled in?

Reason 1: Because of External Pressures (To Get Rewards or Avoid Punishments).

I engage in this behavior because someone insists on my doing this, or I expect to get some kind of reward, or avoid some punishment for behaving this way.

According to this reason, you attend lectures because someone (i.e. your parents, instructors, boss, or spouse) makes you do so. They reward such behavior, or insist on it.

Without these external pressures you wouldn't attend lectures.

Reason 2: To Get Approval or Avoid Guilt.

I engage in this behavior because people around me approve of me for doing so, and I think I should do it. If I didn't engage in the behaviour, I might feel guilty, ashamed, or anxious.

According to this reason, you attend lectures to get the approval of people around you.

If you would skip a lecture you would be ashamed. In comparison to the previous reason, you do not necessarily have a direct outside pressure.

Reason 3: Because It is Important.

I engage in this behavior because I personally believe that it is important and worthwhile to behave this way.

According to this reason, you attend lectures because you personally believe that it is important for you to do so. You consider that this is the right way for a university student to behave.

Reason 4: Because It Is Thoughtfully Considered and Fully Chosen.

I have thought about this behavior and fully considered alternatives. It makes good sense to me to act this way. I feel free in choosing and doing it, and feel responsible for the outcomes.

According to this reason, every time you attend lectures, you realize why you are doing it at that time. You also understand that in other situations you might not attend lectures, but in each case you would admit the consequences of your choice and you would readily accept responsibility for your behavior.

Reason 5: Because It is Fun.

I engage in this behavior because it is interesting, enjoyable, and satisfying to do.

According to this reason, it is a real pleasure for you to attend lectures. You fully enjoy your lectures and find them fun and satisfying.

If you have any questions, please ask the student researcher before completing the survey!

Please rate the degree to which each of the five reasons described above applies to each academic behavior. Use the following scale:

1	2	3	4	5
Not at all because of this reason		Somewhat because of this reason		Completely because of this reason

* Note: do not use the "0" column on the standardized response sheet

Why do you attend the lectures for courses you are enrolled in?

- 45. Because of External Pressures (Rewards or Punishments).
- 46. To Get Approval or Avoid Guilt.
- 47. Because It is Important.
- 48. Because It Is Thoughtfully Considered and Fully Chosen.
- 49. Because It is Fun.

Why do you complete the work (i.e. assignments, papers, etc.) that is given to you in your courses?

- 50. Because of External Pressures (Rewards or Punishments).
- 51. To Get Approval or Avoid Guilt.
- 52. Because It is Important.
- 53. Because It Is Thoughtfully Considered and Fully Chosen.
- 54. Because It is Fun.

Why do you study the material presented in your courses?

- 55. Because of External Pressures (Rewards or Punishments).
- 56. To Get Approval or Avoid Guilt.
- 57. Because It is Important.
- 58. Because It Is Thoughtfully Considered and Fully Chosen.
- 59. Because It is Fun.

4. Attitude Toward University

Please use the scale below to indicate the extent to which you agree or disagree with the following statements.

1	2	3	4	5
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

60. I fully intend to complete a university degree.
61. My aim is to completely master the material presented in my courses.
62. I am striving to do well compared to other students in my courses.
63. My goal is to learn as much as possible in my courses.
64. My aim is to perform well relative to other students in my courses.
65. My goal is to avoid performing poorly compared to other students in my courses.
66. I am striving to understand the content of my courses as thoroughly as possible.
67. My goal is to perform better than the other students in my courses.
68. I am striving to avoid performing worse than other students in my courses.
69. My aim is to avoid doing worse than other students in my courses.
70. I often consider dropping out of school.
71. I feel like I am free to decide for myself how to engage with my courses.
72. Often, I do not feel very competent at university.
73. I feel pressured at university.
74. People I know tell me I am good at what I do in university.
75. I generally feel free to express my ideas and opinions at university.
76. I have been able to learn interesting new skills recently at university.
77. At university, I frequently have to do what I am told.
78. Most days I feel a sense of accomplishment from what I do at university.
79. People I interact with on a daily basis at university tend to take my feelings into consideration.
80. At university I do not get much of a chance to show how capable I am.
81. I feel like I can pretty much be myself in my daily situations at university.
82. I often do not feel very capable at university.
83. There is not much opportunity for me to decide for myself how to do things at my university.

5. Academic Average

84. Using the scale below, what was your overall academic average during your previous semester of university?

1	2	3	4	5
< 60%	60 - 70%	71 - 80%	81 - 90%	> 90%

6. General Emotions

This portion consists of a number of words that describe different feelings and emotions. Please indicate to what extent you generally feel this way, that is, how you feel on the average. Use the following scale:

1	2	3	4	5
Very slightly Or not at all	A little	Moderately	Quite a bit	Extremely

To what extent do you generally feel _____ ?

- 85. ... interested
- 86. ... distressed
- 87. ... excited
- 88. ... upset
- 89. ... strong
- 90. ... guilty
- 91. ... scared
- 92. ... hostile
- 93. ... enthusiastic
- 94. ... proud
- 95. ... irritable
- 96. ... alert
- 97. ... ashamed
- 98. ... inspired
- 99. ... nervous
- 100. ... determined
- 101. ... attentive
- 102. ... jittery
- 103. ... active
- 104. ... afraid

Demographic Information

Please complete the following questions directly on this paper. You are free to leave any question blank without explanation.

1. What is your Gender?

- ☐ Male
- ☐ Female
- ☐ Other

2. I am _____ years old.

3. What is your nationality?

- ☐ Canadian
- ☐ Chinese
- ☐ Other, please specify _____

4. In what college are you currently enrolled?

- ☐ Arts and Science
- ☐ Edwards School of Business
- ☐ Other

5. What is your major? _____

6. Would you be willing to participate in a follow-up interview within the next month?

- ☐ Yes
- ☐ No

If Yes, please print your Sona Systems User Identification Number to be contacted:

***Thank you very much for
participating in this research study!***

***Have a great day and
good luck in your courses!***

Appendix D

All models tested using structural equation modelling; bolded fit indices indicate a good fit of the model.

Index:	Residual Based Fit Indices		Comparative Fit Indices		
	Chi square	sRMR	CFI	RMSEA	NFI
Good fit if:	p > 0.05	< 0.08	>0.95	< 0.06	> 0.9
Model 1: AGT constructs and outcomes					
A) no correlation of error variances					
1. original hypothesized model (18 parameters) Top LM / WTEST solutions: - remove v1-v3 (mastery - performance-avoidance, contributes 0.06 to chi-square) - remove v11,v3 (dedication - performance-avoidance, contributes .154 to chi) - add v10,v2 (SWB-performance approach, contributes 3.019 to chi square) - add v11, v2 (dedication - performance approach, contributes 2.904 to chi square)	271 on 10 d.f. p < .0001	0.135	0.545	0.261	0.545
2. original hypothesized model but with v1-v3 removed (Wald suggestion from above) - makes theoretical sense b/c v1 and v3 are not correlated and are conceptually independent - no significant improvement in model; LM / WTEST solutions same as above	271.39 on 11 d.f. p < .00001	0.135	0.547	0.248	0.545
3. original hypothesized model but with v1-v3 removed and v10-v2 added (LM suggestion) - performance approach and SWB may not be related - no significant improvement in model; LM / WTEST solutions same as above	268.36 on 10 d.f. p < .0001	0.134	0.551	0.259	0.550
4. model tested in 3, but also adding v11-v2 (LM suggestion) - performance-approach and dedication relationship contested in previous research - slightly better, but not really - no significant improvement in model; LM / WTEST solutions same as above	268.48 on 10 d.f. p < .00001	0.134	0.550	0.259	0.549
B) correlation of PWB & SWB errors					
1. original hypothesized model but SWB and PWB errors correlated - chose these 2 because endogenous variables with highest correlation, $r = .697$ - LM / WTEST solutions: remove V1-V3, V11-V3; add V11-V2, V10-2	47.684 on 9 d.f. p < .0001	0.076	0.933	0.106	0.92
2. same as 1B but removed v1-v3 (same as 2 section A above) - LM / WTEST solutions: remove V3-V11; add V2-V11, V10-V2 - no significant improvement in model fit	47.74 on 10 d.f. p < .0001	0.076	0.934	0.099	0.92
3. same as 2B but added v2-v11 (same as 4 section A) - LM/WTEST: remove v11-v3, add v2-v10, no significant improvement in model fit	44.829 on 9 d.f. p < .0001	0.074	0.938	0.102	0.925
4. same as 2B but added v10-v2 (same as 3 section A) - LM/WTEST: remove v11-v3, add v2-v10, no significant improvement in model fit	44.829 on 9 d.f. p < .0001	0.074	0.938	0.102	0.925
5. original hypothesized model but added BOTH v2-v11 and v2-v10 AND removed v1-v3 - LM: add v2-v9 - significantly improved fit from 1B: - *this is best fitting model reported* (20 parameters)	43.469 on 8 d.f. p < .0001	0.073	0.938	0.107	0.927

6. same as 5B but also added v2-v9 (v2-v11 and v2-v10 present, removed v1-v3 from above) - all remaining LM additions add < 1 to chi square - not significantly better than 5	41.755 on 7 d.f. $p < .0001$	0.070	0.940	0.114	0.93
C) adding additional error correlations Correlations between endogenous variables: PWB-SWB: $r = .697$, SWB-DED: $r = .36$, PWB-DED: $r = .327$, SWB-ACH: $r = .11$, DED-ACH: $r = .104$, PWB-ACH: n.s					
1. model 6B from above but allowing E9-E11 and E10-E11 to correlate significantly better fit than 6B:	1.617 on 5 d.f. $p = .89919$	0.014	1	0.000	0.997
2. model 2B from above but allowing E9-E11 and E10-E11 to correlate (V1-V3 removed, but no paths added from original) 1C is a significantly model than 2C:	6.19 on 8 d.f. $p = .62601$	0.029	1	0.000	0.99
* best fit is 1C; HOWEVER, correlations of errors should be used conservatively as it is anti-theoretical (Smolkowski, 2007) to include them just to make a model fit; therefore, only exceptionally high correlations were added and only enough to reach model fit * so, 5B is best fitting model (PWB-SWB errors correlated, perf.avoid-mastery not correlated, and adding perf.app.-dedication, and perf.app.-SWB)					
Model 2: SDT constructs					
A) no correlation of error variances					
1. original hypothesized model (21 parameters) Top WTEST suggestions (no LM b/c all possible paths are already included): - remove V6-V8 (controlling-competence, contributes 2.22 to chi square) - remove V5-V7 (autonomous-autonomy, contributes 4.665 to chi square)	43.96 on 3 d.f. $p < .000001$	0.081	0.872	0.819	0.867
2. original model, remove V6-V8 (controlling-competence; Wald suggestion from above) - no significant improvement from 1A: - Wald suggestion: remove V5-V7, not removing autonomy-autonomous as this is untheoretical - LM suggestion: add V6-V8	46.174 on 4 d.f. $p < .00001$	0.086	0.868	0.166	0.86
B) correlation of error variances: INT-AUT: $r = .27$, INT-CNT: $r = -.24$, AUT-CNT: $r = -.32$					
1. original hypothesized model but with AUT-CNT errors correlated ($r = -.32$) - WTEST same as above, 13 parameters - *this is best fitting model reported*	16.523 on 2 d.f. $p < .001$	0.052	0.955	0.138	0.95
2. same as 1B but remove V6-V8 (same as 2A above but with Aut-Cnt errors correlated) - no significant difference between fit of 2A and 2B, Wald/LM same as above	18.737 on 3 d.f. $p = .00031$	0.057	0.951	0.117	0.943
3. original model but with AUT-CNT & INT-AUT errors correlated - WTEST: remove V6-V8 only - significantly better model than 1B:	7.995 on 1 d.f. $p = 0.0047$	0.034	0.978	0.135	
4. same as 3B but with V6-V8 removed (Wald suggestion from above) - no significant improvement between 4B and 3B; WTEST: remove V5-V7; LM: add V6-V8	10.208 on 2 d.f. $p = 0.006$	0.041	0.974	0.103	0.969
5. all errors correlated, v6-v8 removed (insufficient d.f. to allow all three error correlations with original model) - significantly better model than 4B: - WTEST: remove V5-V7; LM: add V6-V8	2.213 on 1 d.f., $p = .13683$	0.017	0.996	0.056	0.993
* 5 is best model; but again, should use correlations of variables sparingly so use 1B with only AUT-CONT correlated as best fitting model					
Model 3: SDT constructs and outcomes					

A) no correlation of error variances					
1. original hypothesized model (39 parameters, questionable given n = 385) Top WALD solutions (no LM b/c all possible parameters currently in the model): - v10-v6 (SWB-controlling, contributes .238 to chi square) - v9-v4: PWB-Intrinsic (contributes .618 to chi square) - v11-v4: dedication-intrinsic (contributes 1.027 to chi square) - good fit according to one index only	136.024 on 6 d.f., p < .00001	0.048	0.868	0.238	0.867
B) correlation of error variances of endogenous variables PWB-SWB: r = .697 SWB-DED: r = .36 PWB-DED: r = .327 SWB-ACH: r = .11 PWB-ACH: n.s. DED-ACH: r = .104					
1. original model with PWB-SWB error variances correlated - significantly improved model fit, but estimating 40 parameters with only n = 385 so results questionable; Wald: v10-v6, v11-v4, v9-v4	3.508 on 5 d.f., p = .62223	0.012	1	0.000	0.997
2. same as 1B but with v10-v6 removed (Wald test above) - doesn't really make theoretical sense but fit not improved: difference(1) =	3.745 on 6 d.f., p = .71113	0.012	1	0	0.996
3. same as 1B but removed v11-v4 only (Wald test above) - could make theoretical sense but no significant improvement in model ($X^2_{critical}$)	3.916 on 6 d.f. p = .68804				
4. same as 1B but removed v9-v4 only (Wald test above) - could make theoretical sense but no significant improvement in model ($X^2_{critical}$)	3.888 on 6 d.f. p = .69180				
5. same as 1B but with all 3 Wald suggestions removed (v10-v6, v11-v4, v9-v4) - fit not significantly improved from 1B, but no assumptions violated estimating 37 parameters	4.569 on 8 d.f. p = .80204	0.013	1	0.000	0.996
6. same as 1B but removed v10-v6 AND v11-v4 - fit not significantly improved from 1B or 5B, but no assumptions violated, 38 parameters - *this is best fitting model reported*	4.153 on 7 d.f. p = .762	0.013	1	0	0.996
* original hypothesized model did fit but only according to sRMR and may violate assumption of adequate sample size; correlating PWB-SWB error variances significantly improved fit but still violates sample size (40 parameters), so removing 2 paths according to Wald (6 above) provides best fit					
Model 4: AGT & SDT constructs					
A) no correlation of error variances					
1. original hypothesized model (26 parameters) Top Wald solutions (no LM b/c all possible parameters currently in the model): - V2-V4 (performance-approach-intrinsic mot, contributes 0.004 to chi square) - V5-V3, (performance-avoid-autonomous mot, contributes .046 to chi square) - V7,V2, (performance-approach-autonomy sat, contributes .093 to chi square)	254.3 on 10 d.f., p < .00001	0.128	0.595	0.252	0.597
2. same as 1A but removed v2-v4 (Wald suggestion) - does not improve model	254.334 on 11 d.f., p < .00001	0.128	0.597	0.240	0.597
3. same as 1A but removed v5-v3 (Wald suggestion) - does not improve model	254.371 on 11 d.f. p < .0001				
4. same as 1A but removed v2-v7 (Wald suggestion) - does not improve model	254.377 on 11 d.f. p < .0001				
5. same as 1A but removed all 3 Wald suggestions - still doesn't improve	254.423 on 13 d.f. p < .00001				
B) correlation of error variances of endogenous variables: CompSat-Autsat: r = .579, AutSat-Intrins: r = .34, CompSat-Intrins: r = .33, AutMot-Contr: r = .32, CompSat-AutMot: r = .28, AutSat-Contr: r = -.28, Intrins-AutMot: r = .27, Intrins-Contr: r = 0.24, AutSat-AutMot: r = .23, CompSat-Contr: r = -.22					

1. original model but with AutSat-CompSat error variances correlated (27 parameters) - significantly improved from 1A, but still not a good fit of the data; Wald test same as above	107.687	0.096	0.836	0.169	0.829
2. same as 1B but remove v2-v4 , does not improve model fit	107.697	0.096	0.838	0.160	0.829
3. original model but with AutSat-CompSat & AutSat-IntrinsMot errors correlated - better, but still not a good fit; Wald same as above	88.199 on 8 d.f., $p < .0001$	0.087	0.867	0.162	0.860
4. same as 3B but removed v2-v4 (Wald suggestion) - does not improve model from 3B; Wald: remove v3-v5, v2-v7	88.201 on 9 d.f., $p < .0001$	0.087	0.869	0.151	0.860
5: original model but with ASat-CSat & ASat-IMot & CSat-IMot errors correlated - improves model, but still not a good fit (sRMR just barely indicates good fit); Wald same	69.629 on 7 d.f. $p < .0001$	0.079	0.896	0.153	0.890
6. original model with ASat-CSat & ASat-IMot & CSat-IMot & AMot-Contr errors corr. - significant improvement from all previous models, fits data, Wald same as above, 30 params - **this is best fitting model reported**	39.805 on 6 d.f., $p < .0001$	0.068	0.944	0.121	0.937
7. same as 6B but removed v2-v4 (Wald suggestion, does not improve model)	40.094 on 7 d.f.				
8. original model with 6 error correlations added - fits data; better than 5 at $p < 0.005$	29.036 on 4 d.f., $p < .0001$	0.057	0.959	0.128	0.954
9. original model with 7 error correlations added	26.608 based on 3 d.f., $p < .0001$	0.053	0.961	0.143	0.958
10. original model with 8 error correlations added	19.2 on 2 d.f. $p = .00007$	0.045	0.971	0.150	0.97
11. original model with 9 error correlations (35 parameters) - insufficient degrees of freedom to add additional error correlations	8.577 based on 1 d.f., $p = .003$	0.027	0.987	0.14	0.986
* need to add 4 error correlations in order to achieve goodness of fit (#6 above); applying Wald suggestions does not make theoretical sense as it would result in not testing the complete integrative model.					
Model 5: integrative / interview model					
A) no correlation of error variances					
1. original hypothesized model (35 parameters) LM/WALD test solutions: - add v2-v12 (performance-approach-achievement, contributes 24.784 to chi square) - add v1-v6 (mastery-controlling, contributes 19.375 to chi square) - remove v6-v2 (performance-approach, controlling, contributes .034 to chi square) - remove v10,v6 (controlling-SWB, contributes .341 to chi square)	262.450 on 20 d.f., $p < .00001$	0.136	0.732	0.178	0.723
2. same as 1A but add v12-v2 & v6-v1 - better, but still not a good fit	216.135 on 18 d.f., $p < .0001$	0.114	0.781	0.169	0.772
B) correlations of endogenous variables' error variances SWB-CSat: $r = .66$ SWB-AMot: $r = .343$ DED-Asat: $r = .316$ ACH-CSat: $r = .241$ DED-CMot: $r = -.213$ ACH-CMot: n.s. SWB-CMot: $r = -.215$ Csat-Asat: $r = .579$ ASat-IMot: $r = .343$ DED-AMot: $r = .29$ IMot-CMot: $r = -.236$ DED-IMo: $r = .17$ ACH-IMo: $r = n.s.$ IMot-AMot: $r = .27$ SWB-Asat: $r = .554$ SWB-IMo: $r = .342$ Csat-AMot: $r = .284$ ASat-AMot: $r = .227$ DED-ACH: $r = .104$ ACH-Asat: $r = n.s.$ AMot-CMot: $r = .32$ DED-CSat: $r = .45$ Csat-IMot: $r = .33$ ASat-CMot: $r = -.285$ Csat-CMot: $r = -.224$ ACH-AMot: $r = .104$ SWB-ACH: $r = .11$ SWB-DED: $r = .36$					
1. original model but allowing SWB and Csat error to correlate - no better fit, LM/WALD same as above	260.744 on 19 d.f. $p < .00001$	0.135	0.732	0.182	0.725
2. original model with SWB-CSat & Csat-Asat error correlations added - much closer, but still not good, LM/WALD same as above	114.299 on 18 d.f. $p < .000001$	0.097	0.893	0.118	0.879

3. original model with top 3 error correlations added - no difference; LM/WALD same as above but #1 Wald is remove E10-E7 (3rd one added)	114.275 on 17 d.f., $p < .00001$	0.098	0.892	0.122	0.879
4. original model with top 4 error correlations but NOT e10-e7 (3rd added) - LM/WALD same but remove e10-e8 is 3rd (1st one added)	112.52 on 17 d.f., $p < .0000001$	0.097	0.894	0.121	0.881
5. original model with all top 4 error correlations added - better model than with top 3 error correlations at $p < .05$ - adding additional error correlations does not improve model fit - still not a good fit: WALD: remove v6-v2, v6-v10; LM: add v12-v2, v6-v1	110.314 on 16 d.f. $p < .0001$	0.096	0.896	0.124	0.884
6. same as 5B but add v12-v2 (perf.approach-achievement, LM suggestion) - makes theoretical sense, contributes 24.721 to chi-square (from LM test above) - model significantly improved, is a good good fit; WALD: remove v6-v2, LM: add v6-v1	83.871 on 15 d.f., $p < .0001$	0.089	0.924	0.109	0.912
7. same as 5B but also add v6-v1 (mastery-controlling mot, LM suggestion) - makes theoretical sense, contributes 19.375 to chi square (from LM test above) - better fit than 6B at $p < .001$; Wald: remove v12-v5, v10-v6; LM test: add v8-v2, v7-v2 *this is best model, but has 41 parameters which violates adequate sample size ($n = 385$)	63.987 on 14 d.f. $p < .0001$	0.064	0.945	0.096	0.933
8. same as 7B but removed v5-v12 (autonomous mot - achievement; Wald suggestion above) - need to reduce # of parameters estimated for given sample size - v5-v12 contributes 0.145 to chi square; 40 parameters; Wald/LM same as above	64.131 on 15 $p < .0001$	0.064	0.946	0.092	0.932
9. same as 8B but removed v6-v10 (controlling-SWB) (Wald suggestion above) - v6-v10 contributes 0.259 chi square, 39 parameters (Wald/LM same as above)	64.994 on 16 d.f. $p < .0001$	0.063	0.946	0.089	0.932
10. same as 9B but removed v7-v10 (autonomy sat-dedication; Wald suggestion above) - v7-v10 contributed 0.708 to chi square, all remaining Wald suggestions contribute > 1 - not significantly different from 7B but only 38 parameters so does not violate sample size - **this is the best fitting model reported**	65.197 on 17 d.f. $p < .0001$	0.063	0.947	0.086	0.931
11. original model with all top 5 error correlations added Wald says remove E7-E10 (3rd added)	110.301 on 15 d.f. , $p < .0002$	0.096	0.894	0.129	0.884
12. original model with all top 6 error correlations added	110.322 on 14 d.f. $p < .0001$	0.096	0.893	0.134	0.884
13. original model with all top 7 error correlations added	110.315 on 13 d.f. $p < .00001$	0.096	0.892	0.14	0.884
14. same as 13B but added v12-v2 and v6-v1 - significantly better fit than 13B but not different from 10B; model is a good fit of the data	63.999 on 11 d.f., $p < .0002$	0.064	0.941	0.112	0.933
15. original model with top 8 error correlations added - Wald says remove e10-e4 (8th added), otherwise same	110.322 on 12 d.f. $p < .00002$	0.096	0.891	0.146	0.884
16. original model with top 9 error correlations - Wald test: remove e10-e4, v6-v2, v10-v6; LM test: add v12-v2 and v6-v1	110.317 on 11 d.f. $p < .0001$	0.096	0.89	0.153	0.884
* running model with more than 9 error correlations results in good fit but many output errors; it is also untheoretical * #10 is best fitting model as it does not violate assumptions of sample size (it estimates 38 parameters with $n = 385$) and allows fewest correlations of error variances while still maintaining goodness of fit					

APPENDIX E: VARIABLE MATRICES FOR INTERVIEW ANALYSIS

E-1. VARIABLE MATRIX FOR INTERVIEWEE I1

Explanations of Constructs as Experienced by Interviewee I1		
Construct	Explanation	Comments
Intrinsic Motivation	<ul style="list-style-type: none"> - I love learning and reading is one of my favourite past times, so it just - it's one of the things I like to do most - being like wow I never knew that before, that's just incredible, like learning all this new stuff, I love it - there was actually one thing that I just found really interesting, just random ... Hitler was actually, he had applied to Arts school and just thinking about the question of what would have happened if he had got into art school and it expressed that in my textbook and I just - it's just - wow, like who thinks of that? And just like learning about different studies of psychology and all of that - it's so interesting, learning what these people did - I'm an active learner and ... auditory learner, so I like listening and they add more to it than what the textbook brings ... just makes it more interesting ... it gives me more of a deeper connection with what I'm learning about - if I have to be here for 6 years, I'm okay with that, I love it here - I'm in an English class right now and [other students are] just like, "oh this class is so terrible, she makes us do all these readings" and I'm like "I love it, like you get to do that" and I feel like that's how it should be - I feel like after I have a good class and I feel I engaged really well, I feel like I could like take on an army ... it's great ... I feel like if I wasn't, I wouldn't be so happy and wanting to participate in anything if I wasn't enjoying my courses 	<p>KEYWORDS for intrinsic motivation present:</p> <ul style="list-style-type: none"> - I love learning - reading is one of my favourite past times - it's one of the things I like to do most - that's just incredible, like learning all this new stuff, I love it - it's so interesting, learning what [researchers] did - I love it here - I love it, like you get to do [readings] - it's great - [I'm] so happy and wanting to participate in anything - [I'm] enjoying my courses <p>FOSTERED by:</p> <ul style="list-style-type: none"> - course content that is new and stimulates new thoughts and ideas - being an active or auditory learner - having professors who are engaging and "add more to [the course] than what the textbook brings" <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - does not expect intrinsic motivation to fade over duration of university: "if I have to be here for 6 years, I'm okay with that, I love it here" - feels that all other students should share her love of university and interest in: "that's how it should be" <p>CONCLUDED "LEVEL": HIGH</p>
Autonomous Motivation	<ul style="list-style-type: none"> - Getting a degree would be like amazing and it furthers you in this world ... you have more to your knowledge, you have more education, so.. basically, just knowing that I'm furthering myself and I'm achieving more as a person - reading the text book for me only is okay but I like going to classes and engaging with my professor and hearing them speak and listening to their voices and how they explain it is just so different than from just reading - personally, I'm an active learner and... auditory learner, so I like listening and they add more to it than what the textbook brings [and this facilitates my learning] ... it gives me more of a deeper connection with what I'm learning about 	<p>KEYWORDS for autonomous motivation present:</p> <ul style="list-style-type: none"> - Getting a degree furthers you in this world - I'm furthering myself and I'm achieving more - [attending class] gives me more of a deeper connection with what I'm learning <p>FOSTERED by:</p> <ul style="list-style-type: none"> - desire for knowledge and future achievement - belief that attending courses enhances learning <p>CONCLUDED "LEVEL": MODERATE</p>
Controlling Motivation	<ul style="list-style-type: none"> - my parents are very supportive, if I failed a class, they'd definitely be very supportive of me, they'd be very understanding. They say "just try better next time, you can do it," everyone in my life is like that, so I don't have any pressure at all - I obviously feel like I should [attend classes] because I mean what else would I be here for? - people are looking at me and I'm here and they're like "oh well obviously she's here for something" right? And so you should be getting a degree and people always ask me "oh what are you majoring in?" and I'm like, "Oh, well Psychology but it could be something else", and they're like "oh, like you should probably know that" ... so that's basically it, I guess the decision ... is more important than actually getting it ... is to other people - I really don't have any socially conscious 	<p>KEYWORDS for controlling motivation present:</p> <ul style="list-style-type: none"> - I should [attend classes] because I mean what else would I be here for? <p>KEYWORDS for controlling motivation not present:</p> <ul style="list-style-type: none"> - my parents are very supportive - [if I failed, my parents would be] very understanding - I don't have any pressure at all - I really don't have any socially conscious <p>HINDERED by:</p> <ul style="list-style-type: none"> - belief that everyone in one's life is supportive and positive regardless whether one succeeds or fails - personal adoption of societal pressure to attend courses if enrolled in university - lack of concern over having not chosen a future career or field of study despite implications from other students that she should "know that" <p>CONCLUDED "LEVEL": LOW</p>

Mastery- Approach Goals	<ul style="list-style-type: none"> - [I engage in academic activities] basically to further my knowledge - I'm an active learner and I like ... auditory learner, so I like listening and they add more to it than what the textbook brings... it gives me more of a deeper connection with what I'm learning about - I'm just here to learn basically - I like to memorize things and I like to get to the point where I don't have to look at anything, I can just cite it off of the top of my head. That's when I feel that I've done good. - sometimes I do background research ... in psychology I looked up some of Freud's other cases just to look through them and just to learn a little bit more about his work and I like to write it in a lot of different places, I like to type it a lot and just get through it so I understand it completely - it's just understanding it is more just knowing that I know what's happening when I say this certain definition, that I know what they mean, how to apply it - I compare it on my average and I - like, I compare it on my average and I'm like "well that's okay, that's good, that's better" ... in comparison to other students... as well as my own knowledge ... [if I had to pick, I focus more] definitely my own personal knowledge - knowing stuff and then setting my goals and being able to do that afterwards and knowing that I reached it is great and knowing that I got there. - my own personal knowledge ... that's what my focus is - I really want to learn all this stuff 	<p>KEYWORDS for setting mastery goals:</p> <ul style="list-style-type: none"> - to further my knowledge - a deeper connection with what I'm learning about - I'm just here to learn basically - so I understand it completely - to learn a little bit more - knowing how to apply it - I compare [my score] to my average - I focus more on my own personal knowledge than outperforming others - I really want to learn all this stuff <p>FOSTERED by:</p> <ul style="list-style-type: none"> - genuine interest in content <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - unclear whether desire to memorize things to the point where "I can just cite it off of the top of my head. That's when I feel that I've done good" reflects mastery goal (acquisition of this knowledge) or performance goal (ability to demonstrate knowledge by citing it) - forms both mastery and performance goals, but gives priority to mastery goals when forced to choose <p>CONCLUDED "LEVEL": HIGH</p>
Performanc e-Approach Goals	<ul style="list-style-type: none"> - being able to at any point and if somebody asked me what it was, I knew what [the answer] was ... so I can do well in my class, so I can achieve my goal of being successful in school - just having good grades, like even passing feels good, but I mean like if you can get higher than a 50% that's amazing, you're in university - well there's people who - I don't want to say this rudely - but, they slack a lot more and I feel like I should be better than that, that I should just strive to have everything done and have it on time - [by doing better I don't mean marks-wise, I mean] in doing what you need to do, basically... yea - not necessarily, [I don't hope to understand the material better than others] even if I just know that I'm doing all of my assignments and some people aren't, that feels good for me. - I compare both [my grades to the class average and my grades to my own personal goals] usually I compare it on my average and I ... compare it on my average and I'm like "well that's okay, that's good, that's better" but, I also look at the class average just to know - to see where I'm at in my education as well. - [the numeric grades are important to me] just to see where I am personally, if I should be doing more, if I should be doing less - like, just seeing where I'm at feels like, just knowing is good for me ... [where I am] in comparison to other students... as well as my own knowledge - I'm not concerned about other people's grades and how I'm doing 	<p>KEYWORDS for setting performance goals:</p> <ul style="list-style-type: none"> - just knowing is good for me ... [where I am] in comparison to other students - usually I compare it on my average - even if I just know that I'm doing all of my assignments and some people aren't, that feels good for me. - I should be better than [those who] slack a lot - just having good grades - even passing feels good - if you can get higher than a 50% that's amazing - being able to know the answer at any point if asked - so I can do well in my class - so I can achieve my goal of being successful in school <p>KEYWORDS for not setting performance goals:</p> <ul style="list-style-type: none"> - I'm not concerned about other people's grades - [the numeric grades are important to me] just to see where I am personally <p>FOSTERED by:</p> <ul style="list-style-type: none"> - belief that one puts more effort into her studies and thus deserves better grades <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - goal is not to do better than other students or demonstrate competence, but still chooses to compare her marks to others just to see "where I'm at" - does not set performance goals a priori, but judges her success based on performance of others: "I also look at the class average just to know - to see where I'm at in my education as well" - does not compare herself to others based on marks, but does compare "doing what you need to do", "doing all my assignments" - hesitant to admit wanting to do better than others for fear of being "rude" <p>CONCLUDED "LEVEL": MODERATE</p>

Autonomy Satisfaction	<ul style="list-style-type: none"> - it's just more of a personal thing for me [so I don't feel any social pressure] - I don't really hang around with people too much, I'm just kind of a lone soul wandering around and stuff, I feel like if I want to go and study in the library for 5 hours in the exact same spot, I can do that, and it's okay, if people want that spot, it's okay, but I'm there right now and I can do whatever I want - I just feel that this is a good environment, I feel very satisfied with the school and I feel like nobody's going to be offended if I go sit and study somewhere or nobody's going to judge me for doing that - if I was so socially conscious about [what others want me to do] and socially conscious of other people, I wouldn't want to be studying, I'd want to be all cooped up in my room and just hiding away and not worrying about others, but I mean, since I really don't have any socially conscious, like I'm not concerned about other people's grades, and how I'm doing, and I just feel like it's easier to be around - I feel like I would definitely feel more judged and I wouldn't want to hang around with others and like be around other people, like have people around me, I'd feel like I was just um.... being probably more competitive definitely [if I didn't feel as free at university]. - even just like sitting here - even just coming here, I just feel so comfortable and I want to be here and I feel like if I went and set out there and did nothing, just hanging out, I'd be okay - I feel like after I have a good class and I feel I engaged really well, I feel like I could like take on an army ... it's great ... I feel like if I wasn't, I wouldn't be so happy and wanting to participate in anything if I wasn't enjoying my courses ... definitely [I feel more free to be here because I enjoy my courses] - I want to accomplish this for myself 	<p>KEYWORDS for high autonomy satisfaction:</p> <ul style="list-style-type: none"> - more of a personal thing for me - I can do whatever I want - I really don't have any socially conscious - I just feel so comfortable and I want to be here - I want to accomplish this for myself <p>FOSTERED by:</p> <ul style="list-style-type: none"> - "I don't really hang around with people too much" - belief that nobody is judging her for her decisions of how to engage in academic activities - "I'm not concerned about other people's grades, and how I'm doing" - high degree of comfort in her environment - enjoyment of courses; having courses that are engaging <p>HINDERED by:</p> <ul style="list-style-type: none"> - being competitive with other students (discusses this as hypothetical only) <p>CONCLUDED "LEVEL": HIGH</p>
Competence Satisfaction	<ul style="list-style-type: none"> - I just feel like I have the material, I have great professors, I feel like I can take on whatever challenge they throw at me - definitely my professors [make me feel competent] and also just, again my motivation to do well - I had good teachers but they were never really ... they never really interacted as much - and they were never ... a professor is a lot more helpful, I feel, so... it makes it easier. - I don't always accomplish anything - or, everything 	<p>KEYWORDS for high competence satisfaction:</p> <ul style="list-style-type: none"> - I feel like I can take on whatever challenge [professors] throw at me <p>KEYWORDS for low competence satisfaction:</p> <ul style="list-style-type: none"> - I don't always accomplish anything - or, everything <p>FOSTERED by:</p> <ul style="list-style-type: none"> - professors who are helpful and interact with students - desire to do well - having the materials <p>CONCLUDED "LEVEL": MODERATE</p>
Academic Dedication	<ul style="list-style-type: none"> - Getting a degree would be like amazing - I'm here right now... I am doing what I can to get my degree and I feel like if I dropped out, I wouldn't feel like I accomplished what I came here for and that's - I want my sense of accomplishment. 	<p>KEYWORDS for high dedication:</p> <ul style="list-style-type: none"> - Getting a degree would be like amazing - if I dropped out, I wouldn't feel like I accomplished what I came here for - I want my sense of accomplishment <p>FOSTERED by:</p> <ul style="list-style-type: none"> - belief that obtaining a degree would be "amazing" - desire for a "sense of accomplishment" <p>CONCLUDED "LEVEL": MODERATE</p>

Academic Achievement	I mean like if you can get higher than a 50% that's amazing, you're in university	<p>KEYWORDS for low achievement:</p> <ul style="list-style-type: none">- if you can get higher than a 50% that's amazing <p>FOSTERED by:</p> <ul style="list-style-type: none">- belief that merely passing a course is "amazing" <p>OTHER COMMENTS:</p> <ul style="list-style-type: none">- achievement is highly relative between students; student experiences objectively low achievement but may not subjectively feel this as low <p>CONCLUDED "LEVEL": LOW</p>								
Well-being	<ul style="list-style-type: none">- I just feel that this is a good environment, I feel very satisfied with the school and I feel like nobody's going to be offended if I go sit and study somewhere or nobody's going to judge me for doing that- if I was so socially conscious about it and socially conscious of other people, I wouldn't want to be studying, I'd want to be all cooped up in my room and just hiding away and not worrying about others, but I mean, since I really don't have any socially conscious, like I'm not concerned about other people's grades, and how I'm doing, and I just feel like it's easier to be around, out here- even just like sitting here - even just coming here, I just feel so comfortable and I want to be here and I feel like if I went and set out there and did nothing, just hanging out, I'd be okay- I'm just a positive person ... I mean when I do though, I feel it's definitely - I definitely feel like it is because of my attitude and how that I am	<p>KEYWORDS for high wellbeing:</p> <ul style="list-style-type: none">- I feel very satisfied with the school- nobody's going to judge me- I just feel so comfortable- I could like take on an army <p>FOSTERED by:</p> <ul style="list-style-type: none">- not being "socially conscious," or "concerned about other people's grades and how I'm doing"- not feeling judged by others- having a "good class" in which one feels they "engaged really well"- "I'm just a positive person ... it is just because of my attitude and how I am" <p>CONCLUDED "LEVEL": HIGH</p>								
Relationships Between Constructs as Experienced by Interviewee II										
<p>NO DATA for the following relationships:</p> <table><tr><td>Intrinsic Mot. / Achievement</td><td>Mastery-App / Achievement</td></tr><tr><td>Autonomous Mot. / Achievement</td><td>Autonomy Sat. / Competence Sat.</td></tr><tr><td>Competence Sat / Dedication</td><td>Autonomous Mot. / Controlling Mot</td></tr><tr><td>Autonomy Sat / Achievement</td><td>Intrinsic Mot. / Controlling Mot</td></tr></table>			Intrinsic Mot. / Achievement	Mastery-App / Achievement	Autonomous Mot. / Achievement	Autonomy Sat. / Competence Sat.	Competence Sat / Dedication	Autonomous Mot. / Controlling Mot	Autonomy Sat / Achievement	Intrinsic Mot. / Controlling Mot
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Relationships Between Outcome Variables and Motivation Types										
Intrinsic Motivation / Academic Dedication	if I have to be here for 6 years, I'm okay with that, I love it here	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Intrinsic Motivation --> Dedication (positive relationship, possibly facilitating)</p> <ul style="list-style-type: none">- high intrinsic motivation (I love it here) is related to high dedication to complete degree even if it takes a long time <p>OTHER COMMENTS:</p> <ul style="list-style-type: none">- could argue that high intrinsic motivation is related to decreased motivation to complete degree <i>quickly</i> as student is "okay" with stretching degree over 6 years								
Autonomous Motivation / Academic Dedication	<ul style="list-style-type: none">- Getting a degree would be like amazing and it furthers you in this world ... you have more to your knowledge, you have more education ... just knowing that I'm furthering myself and I'm achieving more as a person- Definitely, I feel like if I didn't have the motivation, maybe I wouldn't be here at all ... I would just want to go home, I wouldn't want to be here, my freedom wouldn't even be a thing here... I just wouldn't be here- I'm here right now... I am doing what I can to get my degree and I feel like if I dropped out, I wouldn't feel like I accomplished what I came here for- I want my sense of accomplishment.	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Autonomous Motivation --> Dedication (positive relationship)</p> <ul style="list-style-type: none">- high autonomous motivation ("getting a degree ... furthers you in this world") is related to increased dedication- low autonomous motivation related to low dedication "if I didn't have the motivation ... I wouldn't be here at all"; however this is discussed in hypothetical terms only								

Controlling Mot. / Dedication	<ul style="list-style-type: none"> - you should be getting a degree and people always ask me “oh what are you majoring in?” and I’m like, “Oh, well Psychology but it could be something else”, and they’re like “oh, like you should probably know that” and um, so that’s basically it, I guess the decision to decide is more important than actually getting it is for me I guess 	NO RELATIONSHIP <ul style="list-style-type: none"> - pressure from other students to choose a degree does not influence her to become more or less dedicated to any specific program or university in general
Controlling Mot. / Achievement	<ul style="list-style-type: none"> - No, not at all, my parents are very supportive, if I failed a class, they’d definitely be very supportive of me, they’d be very understanding. They say “just try better next time, you can do it,” everyone in my life is like that, so I don’t have any pressure at all - I feel like if I was concerned about social pressure, I would definitely be more concerned about what my grades were 	CONTEXTUAL RELATIONSHIP <ul style="list-style-type: none"> - student experiences both low controlling motivation and objectively low achievement (student may not subjectively feel achievement a low) but insufficient evidence to conclude direction of relationship; low previous achievement may have resulted in less pressure from parents to attend university OR low pressure to do well may result in lower grades
Intrinsic Motivation / Well-being	<ul style="list-style-type: none"> - I feel like after I have a good class and I feel I engaged really well, I feel like I could like take on an army ... I feel like if I wasn’t, I wouldn’t be so happy and wanting to participate in anything if I wasn’t enjoying my courses. - if I wasn’t interested in this stuff, I feel like I wouldn’t, I’d be like “oh, this is awful and I don’t want to do this” and I’d feel definitely more negative than I am now. 	UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Wellbeing (positive relationship) <ul style="list-style-type: none"> - high intrinsic motivation (enjoyment of courses, engaging with courses, interest in courses) is related to increased increased well-being (“feel like I could take on an army”, happy) - low intrinsic motivation is expected to lead to low well-being
Autonomous Motivation / Well-being	<ul style="list-style-type: none"> - I don’t think [my positive feelings are related to my belief that it is important to be here] my motivation and my positive feelings ... my motivation to be here is just me feeling like I need to be here and that I want to be here whereas my personal happiness is just me ... just who I am - Oh yea, definitely [I would think it’s important to attend university even if I wasn’t as positive of a person] - Yea [I would be a positive person whether or not I felt it was important to attend university] 	NO RELATIONSHIP <ul style="list-style-type: none"> - feels as though her autonomous motivation and positive well-being are entirely unrelated; claims to be a naturally happy person and does not think this would change if she did not feel university was important, also feels that she would think university was important even if she was not as happy of a person
Controlling Motivation / Well-being	<ul style="list-style-type: none"> - if I was concerned about social pressure, I would definitely be more concerned about what my grades were - if I was so socially conscious about it and socially conscious of other people, I wouldn’t want to be studying, I’d want to be all cooped up in my room and just hiding away and not worrying about others, but I mean, since I really don’t have any socially conscious ... I just feel like it’s easier to be around - I think my positive feelings have influence on my not having any social pressures just because ... I don’t want to sound too in to myself, but I feel that I am like a good person, and I feel like even if I didn’t succeed that the social pressures, that it’s okay because I did my best and I tried and even if people are looking from the outside, I know that what I did was all that I could do and so I’d still feel okay about it ... [there may be societal pressures but] I don’t care [because of my positive attitude] 	RECIPROCAL RELATIONSHIP Controlling Motivation --> Wellbeing (negative relationship) <ul style="list-style-type: none"> - absence of controlling motivation promotes positive well-being; believes that if she did experience controlling motivation (social pressure, socially conscious), she would have lower well-being (more concerned, all cooped up) MEDIATED by Mastery goals: <ul style="list-style-type: none"> - negative effects of controlling motivation on well-being reduced if high mastery goals “I did my best and I tried .. so I’d still feel okay about it”) Wellbeing --> Controlling Motivation (negative relationship, possibly impeding) <ul style="list-style-type: none"> - high well-being (positive feeling, belief that “I am a good person”) related to lower controlling motivation because, although societal pressures are still there, she does not allow them to pressure her because of her own positive attitude
Relationships Between Outcome Variables and Needs Satisfaction		
Autonomy Satisfaction/ Dedication	<ul style="list-style-type: none"> - the decision to decide [a major] is more important than actually getting [the degree] is for me - it all accomplishes something for me, it’s all personal feelings that I just want to get done, like “oh I need to set this for myself” and if I accomplish it it’s good and I need to get my degree and if I accomplish that, that’s amazing, and it’s just, it’s all personal - I want to accomplish this for myself 	CONTEXTUAL RELATIONSHIP <ul style="list-style-type: none"> - autonomously chooses to obtain a degree but no clear evidence that this autonomy influences her dedication; high autonomy and high dedication appear to co-exist but may not influence each other

Competence Satisfaction / Academic Achievement	<ul style="list-style-type: none"> - Not necessarily [my competence is not related to my grades] I'm not the best in the class, which I mean is fine, but it doesn't make me any more ... it doesn't make me any more motivated to be here or anything - no [not doing well in a class doesn't influence my competence] I still feel like I can do it - I'm passing ... if I'm getting high grades, obviously it's great, but even if I'm not, I feel like I can still be here and still try my hardest and do my best - Definitely, obviously it feels good when you have a really high grade, it's like - it's just like "wow I did this and I'm doing it" ... and it's just a good feeling - Oh, definitely [getting a good grade makes me feel more capable of doing well in the future] like continuing on in the course, you're like "oh well I did really good on this part, I bet I can do really good on the next part" - Oh, there's definitely a relationship [between grades and competence] if you think "Oh, I'm just going to do awful and I'm just not even going to bother" then you're not going to do far in it but if you have a positive attitude towards it, you'll definitely do well - even, like you can do it, which is basically how you have to think about it. 	<p>RECIPROCAL RELATIONSHIP</p> <p>Competence Satisfaction --> Achievement (positive relationship, possibly facilitating)</p> <ul style="list-style-type: none"> - competence satisfaction (grade expectations, positive attitude) are believed to relate to achievement (grade obtainment) such that one must expect to do well in order to do well <p>Achievement -> Competence Satisfaction (positive relationship, facilitating)</p> <ul style="list-style-type: none"> - high achievement (getting high marks) leads to increased competence satisfaction within the remainder of the course "I bet I can do really good on the next part" - but, does not feel that low achievement hinders competence satisfaction: "I still feel like I can do it"
Autonomy Satisfaction / Well-being	<ul style="list-style-type: none"> - I just feel that this is a good environment, I feel very satisfied with the school and I feel like nobody's going to be offended if I go sit and study somewhere or nobody's going to judge me for doing that - even just like sitting here - even just coming here, I just feel so comfortable and I want to be here and I feel like if I went and set out there and did nothing, just hanging out, I'd be okay - I feel like after I have a good class and I feel I engaged really well, I feel like I could like take on an army ... it's great ... I feel like if I wasn't, I wouldn't be so happy and wanting to participate in anything if I wasn't enjoying my courses [because I enjoy my courses, it makes me feel more free to be here] Definitely 	<p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - experiences both high autonomy and high well-being but no evidence to suggest the two directly influence each other; they may each be influenced by the same covariate, intrinsic motivation
Competence Satisfaction/ Well-being	<ul style="list-style-type: none"> - Oh, definitely, obviously it feels good when you have a really high grade, it's like - it's just like "wow I did this and I'm doing it" ... it's just a good feeling - no, not really, I mean I don't always accomplish anything - or, everything ... I'm just a positive person ... I mean when I do though, I feel it's definitely - I definitely feel like it is because of my attitude and how that I am - I feel that I am like a good person, and I feel like even if I didn't succeed ... that it's okay because I.. did my best and I tried and even if people are looking from the outside, I know that what I did was all that I could do and so I'd still feel okay about it 	<p>RECIPROCAL RELATIONSHIP</p> <p>Wellbeing--> Competence Satisfaction (positive relationship, possibly facilitating)</p> <ul style="list-style-type: none"> - attributes "accomplishment" directly to her positive attitude; thus, having a positive well-being is believed to cause competence satisfaction for this individual <p>Competence Satisfaction -> Wellbeing (positive relationship, facilitating)</p> <ul style="list-style-type: none"> - when one's competence is satisfied (they receive a subjectively high grade), their well-being is increased: "it feels good", "it's a good feeling" - but, when one's competence is not satisfied (they do not succeed), their well-being is not necessarily hindered if they feel as though "I did my best and I tried ... what I did was all that I could do"
Relationships Between Motivation Types and Needs Satisfaction		
Intrinsic Mot. / Autonomou s Mot	<ul style="list-style-type: none"> - personally, I'm an active learner... auditory learner, so I like listening and they add more to it than what the textbook brings... [and that facilitates my learning] it gives me more of a deeper connection with what I'm learning about - even if I'm not interested in that class ... I'll still do everything I can and I'll still be here just as much 	<p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - expresses both intrinsic and autonomous motivation simultaneously but no evidence to suggest these variables are related; is autonomously motivated to learn content and enjoys doing so, but feels she would be autonomously motivated even if she did not enjoy it
Intrinsic Mot. / Autonomy Sat	<ul style="list-style-type: none"> - I wouldn't be so happy and wanting to participate in anything if I wasn't enjoying my courses ... Definitely [because I enjoy my courses, it makes me feel more free to be here] 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Intrinsic Motivation --> Autonomy Satisfaction (positive relationship, possibly facilitating)</p> <ul style="list-style-type: none"> - high intrinsic motivation (enjoyment of courses) is related to high perceived freedom and comfort while at university

Intrinsic Motivation / Competence Satisfaction	<ul style="list-style-type: none"> - I feel like the way I enjoy them makes me more confident, definitely... just because I know like, if I'm enjoying it, I'm definitely like engaging in it more and then I feel more confident in it - Yes [I feel it goes: because I'm interested, I feel more confident as oppose to being more confident makes me interested] - even if I'm not interested in that class ... I'll still do everything I can and I'll still be here just as much ... Trying to figure it out... [so it wouldn't make me feel any less capable] I Just adjusted a little bit 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Intrinsic Motivation --> Competence Satisfaction (facilitating relationship)</p> <ul style="list-style-type: none"> - high intrinsic motivation (enjoyment of course) causes increased competence satisfaction because one engages in the course more and feels more confident in it - but, low intrinsic motivation does not hinder competence satisfaction because she still feels capable of learning but knows she will need to invest more effort <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - degree of competence needed for one to feel satisfied varies by course and other factors; if one is not intrinsically motivated, they may require less objective success to experience competence satisfaction
Autonomous Motivation / Autonomy Satisfaction	<ul style="list-style-type: none"> - Definitely, I feel like if I didn't have the motivation, maybe I wouldn't be here at all and I wouldn't feel free to ... my freedom wouldn't even be a thing here... I just wouldn't be here - I honestly think it could go either way [autonomous motivation influences autonomy satisfaction or vice versa] with that because like, if I didn't feel free and comfortable here, I wouldn't be motivated to be here ... But at the same time, I - if I'm motivated, I'm going to be here all the time, like I am [which enhances freedom and comfort here] 	<p>RECIPROCAL RELATIONSHIP</p> <p>Autonomous Motivation --> Autonomy Satisfaction (positive relationship, possibly facilitating)</p> <ul style="list-style-type: none"> - autonomous motivation to be on campus is related to enhanced autonomy satisfaction while on campus because one becomes more experienced with the facility <p>Autonomy Satisfaction --> Autonomous Motivation (positive relationship, possibly facilitating)</p> <ul style="list-style-type: none"> - high autonomy satisfaction allows for autonomous motivation: "if I didn't feel free and comfortable here, I wouldn't be motivated to be here"
Autonomous Motivation / Competence Sat.	<ul style="list-style-type: none"> - definitely my professors [make me feel competent] and also just, again my motivation to do well as well. - even if I'm not interested in that class... I'll still do everything I can and I'll still be here just as much ... Trying to figure it out ... [so it wouldn't make me feel any less capable] ... I Just adjusted a little bit 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Autonomous Motivation --> Competence Satisfaction (positive relationship, possibly facilitating)</p> <ul style="list-style-type: none"> - high autonomous motivation "to do well", "trying to figure it out", and to attend courses is related to increased competence satisfaction
Controlling Motivation / Autonomy Sat	<ul style="list-style-type: none"> - if I was so socially conscious about it and socially conscious of other people, I wouldn't want to be studying. I'd want to be all cooped up in my room and just hiding away and not worrying about others, but I mean, since I really don't have any socially conscious, like I'm not concerned about other people's grades, and how I'm doing, and I just feel like it's easier to be around, out here 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Controlling Motivation --> Autonomy Satisfaction (negative relationship)</p> <ul style="list-style-type: none"> - lack of controlling motivation (social conscious) enhances autonomy satisfaction ("it's easier to be around out here") - the presence of controlling motivation is expected to be related to decreased autonomy satisfaction
Contr. Motivation / Competence Sat.	<ul style="list-style-type: none"> - I feel like even if I didn't succeed that the social pressures, that it's okay because I ... did my best and I tried and even if people are looking from the outside, I know that what I did was all that I could do and so I'd still feel okay about it. 	<p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - low competence satisfaction and controlling motivation may co-exist
Relationships Between Achievement Goal Theory Constructs and Outcomes		

Mastery- Approach Goals / Performanc e-Approach Goals	<ul style="list-style-type: none"> - [my desire to memorize material and understand it is] definitely different, it's just understanding it is more just knowing that I know what's happening when I say this certain definition, that I know what they mean, how to apply it, the memorizing is more or less just having it in my mind and being able to at any point and if somebody asked me what it was, I knew what it was - even if I just know that I'm doing all of my assignments and some people aren't, that feels good for me - I compare both... I compare [my grade to] my average and I'm like "well that's okay, that's good, that's better" but, I also look at the class average just to know - to see where I'm at in my education as well... [by 'where I'm at', I mean] in comparison to other students... as well as my own knowledge - Yes, definitely [I set numeric grades as a reflection of what I think I should know in the class as oppose to that number means that I beat x number of students] - if I was concerned about social pressure, I would definitely be more concerned about what my grades were compared to other people than more so about how I feel about my marks just in my personal knowledge - [doing better than others] feels good but it's not a set goal, it's just something that kind of happens ... obviously it still feels good, it's like "oh, I got this done and they didn't, well I feel a little bit better than I did like 5 minutes ago", but when you actually have a set goal and you achieve that, that is definitely a better feeling than the last one. 	<p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - holds both mastery goals (goal to understand material, know what's happening, know how to apply content) and performance goals (goal to be able to demonstrate knowledge by answering any content questions at any time) simultaneously, but they are "definitely different" goals; similarly, compares her performance to own personal performance in the past (mastery goal) as well as to the class average (performance goal) - discusses mastery and performance goals as ends of a continuum in relation to social pressure such that she believes she would be more inclined to set performance goals if she experienced social pressure - obtaining a mastery goal is "a better feeling" than obtaining a performance goal <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - compares herself to others (performance goal) on ability to understand assignments (mastery goal) - sets goal of a certain grade (performance goal) based on what grade would reflect adequate understanding of the material (obtainment of mastery goal)
Mastery- App. Goals / Academic Dedication	<ul style="list-style-type: none"> - Getting a degree would be like amazing and it furthers you in this world, you have - like you have more to your knowledge, you have more education - I really want to learn all this stuff, but I also really - I want to accomplish this for myself but at the same time, they're two different goals for me, I mean they're obviously correlated because they're both personal and they're both what I feel like I need 	<p>CONTEXTUAL RELATIONSHIP / CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - Mastery goals (to learn the information) and obtaining a degree are two distinct goals; obtainment of mastery goals is needed to receive a degree and a degree is a reflection of having obtained mastery goals, but the two variables do not necessarily influence each other
Mastery- Approach Goals / Well-being	<ul style="list-style-type: none"> - when you actually have a set goal and you achieve that, that is definitely a better feeling - I feel that I am like a good person, and I feel like even if I didn't succeed ... that it's okay because I... did my best and I tried ... I know that what I did was all that I could do and so I'd still feel okay about it 	<p>UNIDIRECTIONAL RELATIONSHIP Mastery-approach Goals --> Wellbeing (facilitating relationship)</p> <ul style="list-style-type: none"> - achieving mastery goals is related to enhanced well-being - but, not achieving mastery goals is not related do decreased well-being because: "I know that what I did was all that I could do and so I'd still feel okay"
Performanc e-App. / Dedication	<ul style="list-style-type: none"> - No, not necessarily [the goal to do better than others is not related to my dedication to be here] I mean if you go to someone and be like "oh do you do this?" and they're like "oh no" and I'm like "oh well I did it" well, that's great, but that doesn't make me feel more accomplished 	<p>NO RELATIONSHIP</p> <ul style="list-style-type: none"> - desire to outperform others is not related to her dedication; her dedication is not related to a desire to outperform others
Performanc e-Approach Goals / Academic Achieveme nt	<ul style="list-style-type: none"> - just having good grades, like even passing feels good, but I mean like if you can get higher than a 50% that's amazing, you're in university - [by 'doing better', I don't necessarily mean mark wise, I mean] Just in doing what you need to do, basically... Yea [actually doing the work] - [I set numerical goals] to see where I am personally, if I should be doing more, if I should be doing less ... just seeing where I'm at ... just knowing is good for me - I'm passing, obviously... if I'm getting high grades, obviously it's great, but even if I'm not, I feel like I can still be here and still try my hardest and do my best - it feels good when you have a really high grade, it's like - it's just like "wow I did this and I'm doing it" and ... it's just a good feeling I guess ... like continuing on in the course, you're like "oh well I did really good on this part, I bet I can do really good on the next part" - if I was not so positive, I'd be definitely be more worried about other people's grade and if like "oh, I'm not caught up to them, I'm not doing as well as them" and it just would bring me down 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Achievement -> Performance-approach goals (positive relationship)</p> <ul style="list-style-type: none"> - obtainment of a certain grade causes one to set a similar grade as a performance goal for later in the course (low previous achievement may cause one to set performance goals such as passing course rather than performance goals such as to be the top of the class) <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - uses achievement as an example of a performance goal (50%, passing, numerical goals, high grades, doing as well as them); however, other examples of performance goals are also used (doing the work)

Performance-Approach Goals / Well-being	<ul style="list-style-type: none"> - if I was so ... socially conscious of other people, I wouldn't want to be studying, I'd want to be all cooped up in my room and just hiding away and not worrying about others, but I mean, since I really don't have any socially conscious, like I'm not concerned about other people's grades, and how I'm doing, and I just feel like it's easier to be around - I mean if you go to someone and be like "oh do you do this?" and they're like "oh no" and I'm like "oh well I did it" well, that's great, but that doesn't make me feel more accomplished, it doesn't make ... like it feels good, but it doesn't make me feel... more motivated for my accomplishment - when I do though [obtain a performance goal], I feel it's definitely - I definitely feel like it is because of my attitude and how that I am... just... Yea [my positive attitude helps me to obtain the goals that I set] - I feel that if I was not so positive I'd be definitely be more worried about other people's grade and if like "oh, I'm not caught up to them, I'm not doing as well as them" and it just would bring me down and I feel like that's just not who I am. - I definitely think it could go the other way as well, if I set myself a goal and I achieve it, I'm obviously going to feel very happy and it's going to make me a happier person - doing better than other people ... it feels good but it's not a set goal, it's just something that kind of happens ... obviously it still feels good, it's like "oh, I got this done and they didn't, well I feel a little bit better than I did like 5 minutes ago" 	<p>RECIPROCAL RELATIONSHIP</p> <p>Performance-approach goals --> Wellbeing (setting goals: negative relationship; obtaining goals: positive relationship) <u>Well-being & desire to set performance goals</u> - lack of performance-approach goals (not conceded about others' grades) related to increased well-being (easier to be here) - existence of performance goals (socially conscious of others) expected to result in lowered well-being (cooped up, hiding away, worrying) <u>Well-being & attainment of performance goals</u> - obtainment of performance goal results in increased subjective well-being (feels good, makes me a happier person) but no relationship to psychological well-being (sense of accomplishment not changed) - not obtaining a performance goal (not doing as well as them) results in lowered well-being (bring me down)</p> <p>Wellbeing -> Performance-approach goals <u>Well-being & attainment of performance goals</u> (positive relationship, possibly facilitating) - having a high well-being (positive attitude) is related to increased ability to obtain performance goals <u>Well-being & desire to set performance goals</u> (negative relationship, possibly facilitating inverse) - belief that low well-being would result in a desire to set performance goals: if I was not so positive, I'd definitely be more worried about other people's grades</p> <p>OTHER COMMENTS: - chooses not to set performance goal as a way to maintain positive well-being - differentiation between desire to set performance goals and obtainment of performance goals</p>
Relationships Between Achievement Goal Theory and Self-Determination Theory Constructs		
Mastery-Approach Goals / Intrinsic Motivation	<ul style="list-style-type: none"> - [what I find interesting and enjoyable is] just the context, like learning new things and being like wow I never knew that before, that's just incredible, like learning all this new stuff, I love it - there was actually one thing that I just found really interesting, just random, but that Hitler was actually, he had applied to Arts school and just thinking about the question of what would have happened if he had got into art school and it expressed that in my textbook and I just - it's just - wow, like who thinks of that? And just like learning about different studies of psychology and all of that - it's so interesting, learning what these people did? - Yea, like, just bringing it all in and processing it all, it's incredible - personally, I'm an active learner... auditory learner, so I like listening and they add more to it than what the textbook brings ... [it facilitates your learning] ... it gives me more of a deeper connection with what I'm learning about - Yea, most definitely [my goal to understand the material is related to my interest and enjoyment of the material] - Oh yes [my interest and enjoyment in the course is related to my goal to understand the content] definitely, I just... knowing.. knowing stuff and then setting my goals and being able to do that afterwards and knowing that I reached it is great and knowing that I got there ... Yes, [even more so because I'm interested in the course] - even if I'm not interested in that class ... I'll still do everything I can and I'll still be here just as much ... Trying to figure it out. 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Intrinsic Motivation --> Mastery-approach Goals (no relationship) - lack of intrinsic motivation (even if I'm not interested in that class) does not hinder desire to obtain mastery goals -</p> <p>Mastery-approach Goals -> Intrinsic Motivation (positive relationship, possibly facilitating) - having a strong desire to pursue mastery goals (learn new things, bringing it all in and processing it all, gaining a deeper connection to what one is learning) is related to high intrinsic motivation as one enjoys and is interested in learning the material</p>
Mastery-Approach / Autonomous Mot.	<ul style="list-style-type: none"> - personally, I'm an active learner and ... auditory learner, so I like listening and they add more to it than what the textbook brings [and that facilitates my learning] ... it gives me more of a deeper connection with what I'm learning about - even if I'm not interested in that class ... I'll still do everything I can and I'll still be here just as much ... Trying to figure it out. 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Autonomous Motivation --> Mastery-approach Goals (positive relationship, possibly facilitating) - autonomous motivation to attend courses leads to obtainment of mastery goals</p>

Mastery- Approach Goals / Controlling Motivation	<ul style="list-style-type: none"> - I feel like if I was concerned about social pressure, I would definitely be more concerned about what my grades were compared to other people than more so about how I feel about my marks just in my personal knowledge ... because if you're concerned about social pressure, you want to know that you are doing, hopefully better than everyone and that you're accomplishing being better than others... [so if I were socially pressured, I'd be more focused on myself compared to others than on my understanding of the material] definitely - Yes, I think [my sense of freedom is related to the goals I form] I feel like with my own personal knowledge ... that's what my focus is ... if I was so socially conscious about it and socially conscious of other people, I wouldn't want to be studying, I'd want to be all cooped up in my room and just hiding away and not worrying about others - Yes [my goal to understand the material and learn as much as I can might be different if I didn't feel as free]... I feel like I would definitely feel more judged and I wouldn't want to hang around with others - I feel like even if I didn't succeed that the social pressures, that it's okay because I. did my best and I tried and even if people are looking from the outside, I know that what I did was all that I could do and so I'd still feel okay about it 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Controlling Motivation --> Mastery-approach Goals (negative relationship, possibly impeding)</p> <ul style="list-style-type: none"> - believes that controlling motivation (concern about social pressure) would lead to decreased mastery goals (my personal knowledge) because experiencing social pressure implies that one desires to do better than others more so than to achieve marks based on their own personal goals - also believes controlling motivation would lead to decreased attainment of mastery goals because "I wouldn't want to be studying" if I was "so worried about others" <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - high mastery goals protects against negative effects of controlling motivation on well-being (included as mediator in wellbeing-controlling motivation relationship)
Mastery- Approach Goals / Autonomy Satisfaction	<ul style="list-style-type: none"> - Yes, I think [my sense of freedom is related to the goals I form] I feel like ... with my own personal knowledge... that's what my focus is and my freedom at like of what I want to do ... they are very close together because... if I was so socially conscious about it and socially conscious of other people, I wouldn't want to be studying, I'd want to be all cooped up in my room and just hiding away and not worrying about others, but I mean, since I really don't have any socially conscious, like I'm not concerned about other people's grades ... I just feel like it's easier to be around - Yes [my goal to understand the material and learn as much as I can might be different if I didn't feel as free]... I feel like I would definitely feel more judged and I wouldn't want to hang around with others and like be around other people, like have people around me 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Mastery-approach Goals --> Autonomy Satisfaction (positive relationship, possibly facilitating)</p> <ul style="list-style-type: none"> - possessing mastery goals (focus on own personal knowledge) as oppose to performance goals (worrying about others) believed to enhance autonomy satisfaction (make it easier to be one's self around campus) <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - juxtaposes mastery and performance goals when speaking so unsure whether it is the presence of mastery goals that is related to autonomy or merely the absence of performance goals. - low autonomy satisfaction may also lead to further decreased autonomy satisfaction
Mastery- Approach Goals / Competence Satisfaction	<ul style="list-style-type: none"> - I think understanding the material makes me feel more competent... Yea, I think so - I feel like once I feel like I can do it, I feel like I, I know I can and so I go to understanding it and I guess that's just how it works 	<p>RECIPROCAL RELATIONSHIP</p> <p>Competence Satisfaction --> Mastery-approach Goals (positive relationship, possibly facilitating)</p> <ul style="list-style-type: none"> - competence satisfaction is needed ("once I feel like I can do it") to obtain mastery goals ("I go to understanding it") <p>Mastery-approach Goals -> Competence Satisfaction (positive relationship, possibly facilitating)</p> <ul style="list-style-type: none"> - attainment of mastery goal causes competence satisfaction
Performanc e/Intrinsic Mot.	<ul style="list-style-type: none"> - well there's people who - I don't want to say this rudely - but, they slack a lot more and I feel like I should be better than that, that I should just strive to have everything done and have it on time, I'm in an English class right now and they're just like, "oh this class is so terrible, she makes us do all these readings" and I'm like "I love it, like you get to do that" and I feel like that's how it should be 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Intrinsic Motivation --> Performance-approach Goals (positive relationship, possibly facilitating)</p> <ul style="list-style-type: none"> - knowing that one has higher intrinsic motivation than others in a course causes one to set performance goals to do better than these students
Performanc e/ Autonomou s Mot.	<ul style="list-style-type: none"> - again my motivation to do well - I'm not the best in the class, which I mean is fine, but it doesn't make me any more ... motivated to be here or anything 	<p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - is autonomously motivated to do well <p>NO RELATIONSHIP</p> <ul style="list-style-type: none"> - not obtaining performance goals does not enhance autonomous motivation

Performance-Approach Goals / Controlling Motivation	<ul style="list-style-type: none"> - if I was concerned about social pressure, I would definitely be more concerned about what my grades were compared to other people ... because if you're concerned about social pressure, you want to know that you are doing, hopefully better than everyone and that you're accomplishing being better than others ... definitely [if I were socially pressured, I'd be more focused on comparing myself to others] - since I really don't have any socially conscious, like I'm not concerned about other people's grades, and how I'm doing, and I just feel like it's easier to be around, out here ... [if I felt social pressure] I feel like I would definitely feel more judged and I wouldn't want to hang around with others and like be around other people, like have people around me, I'd feel like I was just being probably more competitive definitely 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Controlling Motivation --> Performance-approach Goals (positive relationship)</p> <ul style="list-style-type: none"> - high controlling motivation is expected to be related to setting performance goals: "because if you're concerned about social pressure, you want to know that you are doing, hopefully better than everyone" - low controlling motivation is related to lack of desire to set performance goals "I'm not concerned about other people's grades"
Performance-Approach / Autonomy Satisfaction	<ul style="list-style-type: none"> - if I was so socially conscious about it and socially conscious of other people, I wouldn't want to be studying, I'd want to be all cooped up in my room and just hiding away and not worrying about others, but I mean, since I really don't have any socially conscious, like I'm not concerned about other people's grades ... I just feel like it's easier to be around, out here. 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Performance-approach Goals -> Autonomy Satisfaction (negative relationship, possibly facilitating)</p> <ul style="list-style-type: none"> - lack of performance goals is related to increased autonomy satisfaction because when one is not "worrying about others", they feel free to engage with their academic activities as they choose: "it's easier to be around"
Performance-Approach Goals / Competence Satisfaction	<ul style="list-style-type: none"> - definitely my professors [make me feel competent] and also just, again my motivation to do well - I really don't think that there is a relationship between [my sense of competence and my desire to do better than others], I just feel like they're different goal sets for me. No, not for me [one does not relate to the other] - I'm passing, obviously ... if I'm getting high grades, obviously it's great, but even if I'm not, I feel like I can still be here and still try my hardest and do my best - it feels good when you have a really high grade, it's like - it's just like "wow I did this and I'm doing it" ... and it's just a good feeling I guess ... definitely, [it makes me feel more competent] continuing on in the course, you're like "oh well I did really good on this part, I bet I can do really good on the next part" - there's definitely a relationship [between competence and grades] if you think "Oh, I'm just going to do awful and I'm just not even going to bother" then you're not going to go far in it but if you have a positive attitude towards it, you'll definitely do well - even, like you can do it, which is basically how you have to think about it. 	<p>RECIPROCAL RELATIONSHIP</p> <p>Competence Satisfaction --> Performance-approach Goals (positive relationship)</p> <ul style="list-style-type: none"> - competence satisfaction (positive attitude, expectation to do well) is believed to be related to obtaining of performance goals and lack of competence satisfaction is believed to be related to non-obtainment of performance goal <p>Performance-approach Goals --> Competence Satisfaction (positive relationship, facilitating)</p> <ul style="list-style-type: none"> - desire "to do well" is related to increased competence satisfaction - obtaining a performance goal (getting a really high grade) causes increased competence satisfaction for the duration of the course - but, not obtaining performance goals does not appear to decrease competence satisfaction: "I can still be here and still try my hardest" <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - competence satisfaction may be relative to specific courses (obtaining a performance goal may not increase overall competence satisfaction but will increase satisfaction within that specific course) - relationship exists between competence and obtainment of performance goals BUT NOT for competence and the setting of performance goals

E-2. VARIABLE MATRIX FOR INTERVIEWEE I2

Explanations of Constructs as Experienced by Interviewee I1

Construct	Explanation	Comments
Intrinsic Motivation	<ul style="list-style-type: none"> - I enjoy the learning too so like it's not as hard for me to be academically motivated than other kids. Like, I know going to class and stuff, it's hard for some of my friends but I really enjoy learning - I enjoy - it gives me happiness to do well - I like soaking up new information and learning new things. Like, I'm really interested in like biology stuff and chemistry stuff and just how the body works, and, yea that gives me interest, so I like learning about that - I just love learning about the nutrition and then applying it to my regular life - I like university and I like learning therefore I came to [university] - I'd love to pursue nutrition or pharmacy or medicine - I like being here partly because...I like learning and stuff, but I like being in school partly because I excel at it and it gives me confidence that I am a lot better than others at it 	<p>KEYWORDS for intrinsic motivation present:</p> <ul style="list-style-type: none"> - I enjoy the learning - it gives me happiness to do well - I like soaking up new information and learning new things - I just love learning about the nutrition - I like university - I'd love to pursue nutrition or pharmacy or medicine <p>FOSTERED by:</p> <ul style="list-style-type: none"> - desire to learn new information - desire to apply information to one's "regular life" - belief that one will "do well" and "excel" at university - desire for a future career in a related field - "confidence that I am a lot better than others at it" <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - compares her enjoyment of university to friends who do not enjoy learning <p>CONCLUDED "LEVEL": HIGH</p>

Autonomous Motivation	<ul style="list-style-type: none"> - I want the benefit of doing well in life ... and I feel like those correlate directly ... if I am a good student and if I go to class and if I study I'll become successful in the future and like right now I kind of want to be a doctor - it's hard sometimes to get the motivation to study, but if I just concentrate on like the benefits of what it'll bring me in the future - how I learn is like listening to the professor talk and stuff like that and that really like, not that I have like psychic powers or anything, but like, when I'm writing my test later, something will come up and I'll be like "oh yea, that's what happened there", so I feel like I'm motivated to go to class because of that little thing that'll happen in my head when I'm writing my exams. - if I show effort ... now, then when future people want to employ me or when I want to talk about the things that I've accomplished, they'll see that obviously she's a hard worker and she's a good student and I'm hoping that ... I haven't really gotten to know professors personally, but I feel like lab TAs and ... people who know me can ... reference for me ... I can show that I am a good student and I'm a hard worker and stuff like that when it comes to potential employers in the future - if I develop these habits ... these habits have already been like pushed into me to try hard to do good through like elementary school through high school and I feel like if I keep them up through university I'll keep them up through ... of my life, and that's really important to me not to give up now because like a lot of people that I know, they - now that there's nothing - no homework marks or anything like that now that we're in university, they're just kind of like oh and shrug it off and quit, right? But, I just don't see, like now that you've tried so hard and so long and just to quit? ... I feel like that would have a negative effect on the rest of my life - If I started being lazy now, then like once it comes to the important part of my university, like fourth year of fifth year when I'm trying to get into a professional college ... I won't get the motivation ... what I understood basically from my professors telling me how to get into professional colleges, it's like you have to work hard, like that's what it comes from and so if I just slack off for my first year, like I know most people I know are doing, then I'm not going to want to try harder in those years, it's going to be that much harder to like start keeping up again, but, if I just don't ever quit ... then it won't be harder to like pick it up again and it'll just be like force of habit - my parents think it's important that I do well ... other people it's important that I do well, but I think it's more of me pushing myself, it's always been more of me pushing myself than anybody else pushing me - it's so much on myself to pressure myself to do well - I feel like secondary education is important; I would have came here eventually because I think that there's a negative aspect to not pursuing education - to be good enough to get into a professional college is definitely a big thing for me... I'd love to pursue nutrition or pharmacy or medicine - we've never had like a lot of money, right? And I feel like that influences me to do better just so I can like have good stuff in the future, so I can like go on trips so I can do all that ... so I can just live a better future ... I know that if I get good grades, I'll get into a professional college, and I'll get a good job and that'll lead to lots of money. 	<p>KEYWORDS for autonomous motivation present:</p> <ul style="list-style-type: none"> - I want the benefit of doing well in life - it's hard to get the motivation to study, but I just concentrate on the benefits of what it'll bring me in the future - I'm motivated to go to class [I will recognize the coronet answer] when I'm writing my exams. - if I show effort ... when future people want to employ me ... they'll see that obviously she's a hard worker - it's really important to me not to give up now - it's always been more of me pushing myself than anybody else pushing me - pressure myself to do well - secondary education is important <p>FOSTERED by:</p> <ul style="list-style-type: none"> - belief that being a "good student" (studying and attending classes) will lead to employment and future career success - belief that attending class will lead to better exam performance - desire to obtain positive references from others for future employment or opportunities - previous autonomous motivation: "these habits have already been like pushed into me to try hard to do good through like elementary school through high school" - knowing other students who are not autonomously motivated and having no desire to be like this: "now that we're in university, they're just kind of like oh and shrug it off and quit, right? But, I just don't see, like now that you've tried so hard and so long and just to quit? ... I feel like that would have a negative effect on the rest of my life" - desire to attend a professional college - belief that "being lazy now" or allowing one to become un-autonomously motivated will lead to great difficulty in becoming autonomously motivated once "it comes to the important part of my university" - perception that it is "important" to one's parents social network that one "does well" and personal adoption of these values - belief that not pursuing secondary education is negatively valued by society - belief that good grades, professional college, obtaining a good job, earning lots of money, and having a better future are all contingently related and having a strong desire for this "better future" <p>CONCLUDED "LEVEL": HIGH</p>
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<p>Controlling Motivation</p>	<ul style="list-style-type: none"> - these habits have already been like pushed into me to try hard to do good through like elementary school through high school - my parents think it's important that I do well ... and other people it's important that I do well, but I think it's more of me pushing myself, it's always been more of me pushing myself than anybody else pushing me - I'm sure people are concerned about me doing well in life ... maybe they saw when I was younger ... that I never really needed any push and so therefore it's - like, I was a Greystone scholar and stuff like that and so my parents have never really... not that they haven't cared about my grades, but it kind of comes so much to me and it's so much on myself to pressure myself to do well that they just have never really commented on it, and like same with my friends, like they all worry about themselves and they all worry about their grades, but, no one ever pressured, not that I pressure my friends to do well, but no one ever really pressured me into - I do think that there's like a negative prejudice, which I support as well, if that sounds weird, but like people who don't go to school and don't pursue secondary education, I - there's like the negative aspect that's along with that, right? And I consider that a negative aspect, if I didn't get some sort of secondary education, I don't think that would be good - I think people think lower of people who do not pursue secondary education - not that I get teased or bullied or anything ... I was always like the best ... that's really... what's the word? - that's really not horrible at all [sarcasm], but I was always like the best in high school and the best in elementary school and I always had one of the top 1, 2, or 3 averages and I don't want anybody to have anything against me, kind of - not that it would be against me, but if somebody ever got like a higher mark than me in elementary school or high school and they were like "oh, I got a higher mark than [I11] ... stuff like that would just like bother me to the extreme, so I think it's that that kind of motivates me to do better than they are - if my parents pressured me as well to be like be a doctor, be a doctor, be a doctor, and everyone else pressured me, like I think I'd for surely crack because I'm on - like, I put so much pressure on myself, seriously, I think I'm the only one in the world who puts pressure on myself, like my parents don't pressure me and my boyfriend doesn't pressure me, my friends don't pressure me - I don't have a lot of social pressure, except for in myself, I've never been told like negative things - I've always been friends with like smarter people and I think that motivates me more and like and - not that I was - I was never pushed to do better, but just being around people who are in my mindset - but being around people who are motivated to be in university and who are motivated to do well in school and that kind of stuff, it really certainly helps out rather than if I were to hang out with a group of people who wanted to be like truckers for the rest of their life - they don't pressure me by any means, they just like... being around others who are wanting to do well motivates me to do well as well 	<p>KEYWORDS for controlling motivation present:</p> <ul style="list-style-type: none"> - these habits have already been like pushed into me - my parents and others think it's important that I do well - people are concerned about me doing well in life - I think people think lower of people who do not pursue secondary education - [gloating of students who do better than her] would just bother me to the extreme, so I think it's that that kind of motivates me to do better than they are <p>KEYWORDS for controlling motivation not present:</p> <ul style="list-style-type: none"> - it's always been more of me pushing myself than anybody else pushing me - I never really needed any push - not that [my parents] haven't cared about my grades, but it kind of comes so much to me and it's so much on myself to pressure myself to do well that they just have never really commented - no one ever really pressured me - I think I'm the only one in the world who puts pressure on myself, my parents don't pressure me and my boyfriend doesn't pressure me, my friends don't pressure me - I don't have a lot of social pressure, except for in myself - I was never pushed to do better - they don't pressure me by any means <p>FOSTERED by:</p> <ul style="list-style-type: none"> - previous controlling motivation "elementary school through high school" - internal pressure to continue to be "the best" after having been the best throughout primary education, partially due to a strong aversion to the response of students who do better than her when they usually do not <p>HINDERED by:</p> <ul style="list-style-type: none"> - personal adoption of parental and societal views that education and "doing well" is highly important <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - appears to have adopted parent and societal views so that controlling motivation and pressure now comes from "self" rather than others: "there's like a negative prejudice, which I support as well ... people who don't go to school and don't pursue secondary education ... I consider that a negative aspect, if I didn't get some sort of secondary education, I don't think that would be good" - acknowledges that admitting prejudice toward people who don't pursue secondary education as well as her own high academic achievement goes against social norms - interacts with others at university who want to do well but does not perceive this as peer pressure; rather, enjoys "being around people who are in my mindset" <p>CONCLUDED "LEVEL": MODERATE</p>
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Mastery- Approach Goals	<ul style="list-style-type: none"> - I enjoy the learning too ... I really enjoy learning - I like soaking up new information and learning new things - I just love learning about the nutrition and then applying it to my regular life - most of my high school marks are like 95 and higher and I heard that like ... for university, you had to expect your marks to go down like 10% so I was hoping like 85 plus - I think it's important to understand your material because like if you can understand it and if you can explain it to somebody else, like that's so much learning and you get so much out of that - I'd get really high marks so my friends would say "oh can you teach me?" so I'd be like "sure", but I realized that I don't understand the information, I could just regurgitate it very very very well, and it came most evident to me when I was in Bio 20 ... all his stuff could have easily been like memorize this graph, that's what you have to write for the exam and then it's all regurgitated information and when I went to go like explain it, I couldn't - I didn't know what was happening, I knew I drew a CH here and a CH here and this is what the gases cycle looks like - you're just going to benefit if you understand how the information all ties together than if you just memorize - if I understand things it's like always there - right? Rather than just memorizing and then it kind of like, to me memorizing is really really like limited, like it's only in your mind for that good day after that, and then man it is gone, right? So, therefore, I think that if you understand it, it's in you for longer - - I feel like the understanding would have to come with that, but that's on like kind of a separate note - to get that high of a mark I have to understand the material, but that high of mark is the ultimate thing rather than understanding ... I'm a big believer in understanding, but if it had to happen that I would have to memorize something rather than understand it, I'd do that right away to get a higher mark 	<p>KEYWORDS for setting mastery goals:</p> <ul style="list-style-type: none"> - learning new things - soaking up new information - I was hoping to earn marks not less than 10% of those earned in high school - it's important to understand your material - understand how the information all ties together - I have to understand the material - I'm a big believer in understanding <p>FOSTERED by:</p> <ul style="list-style-type: none"> - content that is "new" or applicable to one's "regular life" - desire to be able to "explain it to somebody else", thoroughly know "what is happening", and remember the content long-term - belief that understanding the information is better than being able to "regurgitate it" for a test: "you're going to benefit if you understand how the information all ties together than if you just memorize" - realization that one can do well on a test through memorization without understanding the content - belief that memorization of content does not allow one to remember it long-term and "if I understand things it's like always there" - desire to obtain a high mark and the belief that understanding the information will lead to a high mark <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - actual mastery goals set are based on attainment of past goals (university goals similar to high school goals) - sets mastery goals primarily for the purpose of achieving performance goals: "that high of mark is the ultimate thing rather than understanding" <p>CONCLUDED "LEVEL": HIGH</p>
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<p>Performance- Approach Goals</p>	<ul style="list-style-type: none"> - to do well and like even to do better than other people in some cases, like I'm really competitive with my personality and not just in school but with other things too, so if like I can do better than other people, that's just - in like whether, getting good marks on tests and stuff like that, that motivates me as well - it's just the competition aspect, more than anything of like the social thing ... I don't compete with my friends for marks, it's just my internal self being like "I've got to get a better mark than this person" sort of thing - I like to retain enough marks and stuff, to like I like to get 85 - I was always like the best in high school and the best in elementary school and I always had one of the top 1, 2, or 3 averages and I don't want anybody to have anything against me, kind of - not that it would be against me, but if somebody ever got like a higher mark than me in elementary school or high school and they were like "oh, I got a higher mark than [I11]" ... stuff like that would just like bother me to the extreme, so I think it's that that kind of motivates me to do better than they are - I think it might be like both [doing better than others and not doing worse than others] like I like to do better than other people and like there's a part of me that likes to brag about my marks - which really isn't a good part, therefore I think it's a combination - and then, I don't like to get worse marks than other people either, so I think it's a combination of both - in my head, like to get that high of a mark I have to understand the material, but that high of mark is the ultimate thing rather than understanding, like if I - I'm a big believer in understanding, but if it had to happen that I would have to memorize something rather than understand it, I'd do that right away to get a higher mark than somebody - being like the best is one of my goals for sure - I think that motivation [in a professional college] to be better than other people will be limited because I know that it won't be as much of a competition anymore [because I will have already been accepted] - I usually do do better 	<p>KEYWORDS for setting performance goals:</p> <ul style="list-style-type: none"> - to do well - to do better than other people - my internal self being like "I've got to get a better mark than this person" - to retain enough marks ... to get 85 - to do better than they are - I like to do better than other people - I don't like to get worse marks than other people either - that high of mark is the ultimate thing - to get a higher mark than somebody - being like the best is one of my goals for sure <p>FOSTERED by:</p> <ul style="list-style-type: none"> - a competitive personality: "I'm really competitive with my personality and not just in school but with other things too"; "it's just the competition aspect, more than anything" - the belief that one is able to do better than others: "if like I can do better than other people ... that motivates me as well" - attainment of previous performance goals: "I was always like the best in high school and the best in elementary school"; "I usually do do better" - strong dislike for situation in which others are able to gloat for obtaining a higher mark - enjoyment obtained from being able to "brag about my marks" - desire to attend professional college <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - desire to compete with others is kept as an internal concern rather than an external competition known by those involved - acknowledges that competing with others and enjoying bragging about marks is against social norms - believes performance goals will be lower once admitted to a professional college as she will no longer be in competition with others <p>CONCLUDED "LEVEL": HIGH</p>
<p>Autonomy Satisfaction</p>	<ul style="list-style-type: none"> - I know it's kind of my choice, what I'm doing - Well I know that I don't really have to be a doctor, I can be whatever I want ... I can take different classes, whatever I want to take ... I feel free to be myself - I never feel pressured to be anybody else and I feel good about myself, I'm usually myself all the time - I find it so much easier to study here rather than at home, just because I live on the West side and like to bus here every single day is just annoying, so I spend a lot of time here and that - technically that isn't all on my own choice, but I've learned, like - I think I've taught myself to learn better on my - like not on my own, but here than I would at home and I teach myself to be happy with it - I feel like I have the freedom to do whatever I want to do and, yea, I feel like being crazy and being like the best is one of my goals for sure, so, I feel like I have freedom to not choose that though 	<p>KEYWORDS for high autonomy satisfaction:</p> <ul style="list-style-type: none"> - it's my choice what I'm doing - I can be whatever I want - I can take different classes, whatever I want to take - I feel free to be myself - I have the freedom to do whatever I want to do <p>KEYWORDS for low autonomy satisfaction:</p> <ul style="list-style-type: none"> - technically that isn't all on my own choice <p>FOSTERED by:</p> <ul style="list-style-type: none"> - not feeling pressured by anybody else - feeling good about one's self - ability to re-frame situations that "technically isn't all my own choice" into autonomous decisions (e.g. has a long commute to university so chooses to study on campus: "I teach myself to be happy with it") <p>CONCLUDED "LEVEL": HIGH</p>

Competence Satisfaction	<ul style="list-style-type: none"> - beginning of my high school career I went through a period where I just memorize, I just took up information, my dad has a photographic memory ... I don't know how it works, if I have a little bit of a photographic memory, but things just like came easily to me, but then I wasn't able to describe it - I was always like the best ... - that's really not horrible at all [sarcasm], but I was always like the best in high school and the best in elementary school and I always had one of the top 1, 2, or 3 averages - I excel at it and it gives me confidence that I am a lot better than others at it ... that correlates ... it gives me confidence - I would not go into a business course. I don't understand money - I feel like my sense of competence definitely influences my the feeling of importance ... because I think I'm competent, I will think that I am going to be a good doctor ... the idea of being a good doctor also makes me confident - I usually do do better - if you find something comes really really naturally, then like it will be competent for you 	<p>KEYWORDS for high competence satisfaction:</p> <ul style="list-style-type: none"> - things just like came easily to me - I was always like the best - I always had one of the top 1, 2, or 3 averages - I excel at it and it gives me confidence - I am a lot better than others at it - I usually do do better - I think I'm competent - something comes really really naturally <p>KEYWORDS for low competence satisfaction:</p> <ul style="list-style-type: none"> - I wasn't able to describe it - I don't understand money <p>FOSTERED by:</p> <ul style="list-style-type: none"> - consistently obtaining high marks and outperforming others - visualizing one's self in a respected profession (e.g. doctor) <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - acknowledges that claiming to be the best goes against social norms - competence satisfaction is relative; feels less competent if can't describe content even if she is able to do better on test than most people - context specific: "I would not go into a business course" <p>CONCLUDED "LEVEL": HIGH</p>
Academic Dedication	<ul style="list-style-type: none"> - I kind of want to be a doctor - I just don't see, like now that you've tried so hard and so long and just to quit? ... I feel like that would have a negative effect on the rest of my life - a part of me still thinks I can take a year off, I can have a job, so it's really not that university is the only option - I could leave school at anytime... I thought about leaving school and taking a year off, then coming back sort of thing - I just got to get an education at some point - I'd love to pursue nutrition or pharmacy or medicine - not that I would drop out, but I think I'd take time off and like go travel and stuff, but I'd always come back and I'd always finish a career - I feel like completing university will happen naturally 	<p>KEYWORDS for high dedication:</p> <ul style="list-style-type: none"> - I want to be a doctor - I got to get an education at some point <p>KEYWORDS for low dedication:</p> <ul style="list-style-type: none"> - I can take a year off, I can have a job, so it's really not that university is the only option - I thought about leaving school and taking a year off, then coming back - not that I would drop out, but I think I'd take time off <p>FOSTERED by:</p> <ul style="list-style-type: none"> - belief that quitting university after having "tried so hard" would "have a negative effect on the rest of my life" <p>HINDERED by:</p> <ul style="list-style-type: none"> - desire to travel or have a job before beginning a career - belief that "completing university will happen naturally" <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - differentiation between dedication to ultimately compete a degree (high) and current dedication to remain in university (moderate) <p>CONCLUDED "LEVEL": MODERATE</p>

Academic Achievement	<ul style="list-style-type: none"> - I was a Greystone scholar - most of my high school marks are like 95 and higher - my marks have gone down a little 	<p>KEYWORDS for high achievement:</p> <ul style="list-style-type: none"> - Greystone scholar - marks are 95 and higher <p>KEYWORDS for low achievement:</p> <ul style="list-style-type: none"> - marks have gone down a little <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - perceived achievement is relative to past achievement <p>CONCLUDED “LEVEL”: HIGH</p>
Well-being	<ul style="list-style-type: none"> - I enjoy - it gives me happiness to do well - I just love learning about the nutrition and then applying it to my regular life and food studies, and physical activities, all that jazz, makes me happy - if somebody ever got like a higher mark than me in elementary school or high school and they were like “oh, I got a higher mark than [Interviewee 11]”... that would just like bother me to the extreme - I still feel really good about it and I still know I can explain things to people and I’m still good with it so it makes me happy. - if I were to get a bad mark on something, like I’d be bummed 	<p>KEYWORDS for high wellbeing:</p> <ul style="list-style-type: none"> - it gives me happiness - I love learning about nutrition - makes me happy <p>KEYWORDS for low wellbeing:</p> <ul style="list-style-type: none"> - bother me to the extreme - I’d be bummed <p>FOSTERED by:</p> <ul style="list-style-type: none"> - doing well, applying new information to one’s “regular life”, physical activity, explaining course content to others <p>HINDERED by:</p> <ul style="list-style-type: none"> - being outperformed by others, obtaining a low mark <p>CONCLUDED “LEVEL”: MODERATE</p>
Relationships Between Constructs as Experienced by Interviewee I2		
NO DATA for the following relationships: Autonomy Satisfaction / Academic Achievement		
Relationships Between Outcome Variables and Motivation Types		
Intrinsic Mot. / Dedication	<ul style="list-style-type: none"> - I’d love to pursue nutrition or pharmacy or medicine - Exactly [I would not enrol in a course unless I get I was going to enjoy it] like, I would not go into a business course ... I feel like I’d have to like business first and then decide “oh, I should probably go into business” 	<p>UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Dedication (positive relationship)</p> <ul style="list-style-type: none"> - high intrinsic motivation toward a specific program is related to increased dedication to complete that program
Autonomous Motivation / Academic Dedication	<ul style="list-style-type: none"> - I want the benefit of doing well in life ... and I feel like those correlate directly ... if I am a good student and if I go to class and if I study I’ll become successful in the future and like right now I kind of want to be a doctor - I just don’t see, like now that you’ve tried so hard and so long and just to quit? ... I feel like that would have a negative effect on the rest of my life - I think that it would have been better for me to go to university ... a part of me still thinks I can take a year off, I can have a job, so it’s really not that university is the only option - basically I feel like secondary education is important; I would have come here eventually because I think that there’s a negative aspect to not pursuing education, like I think people think lower of people who do not pursue secondary education, but I think that ... I could leave school at anytime ... I thought about leaving school and taking a year off, then coming back - I would have gone to school eventually, but it doesn’t matter when, I just got to get an education at some point - my parents, we’ve never had like a lot of money, right? And I feel like that influences me to do better just so I can like have good stuff in the future, so I can like go on trips so I can do all that ... so I can just live a better future life kind of thing and that’s what - I know that if I get good grades, I’ll get into a professional college, and I’ll get a good job and that’ll lead to lots of money. - not that I would drop out, but I think I’d take time off and like go travel and stuff, but I’d always come back and I’d always finish a career, and I think that’s important, I think high monetary ... I think like making a lot of money happens directly from finishing a university career, therefore because I want to make a lot of money, because I have the aspirations to have a good future and have a good job, I would like naturally finish a university career - I feel like completing university will happen naturally 	<p>RECIPROCAL RELATIONSHIP</p> <p><u>(Autonomous Motivation & dedication to ultimately obtain a degree and dedication toward current courses)</u></p> <p>Autonomous Motivation --> Dedication (positive relationship)</p> <ul style="list-style-type: none"> - high autonomous motivation over a long period of time is related to increased dedication: “now that you’ve tried so hard and so long and just to quit?” <p>Dedication -> Autonomous Motivation (positive relationship)</p> <ul style="list-style-type: none"> - high dedication to complete degree is related to high autonomous motivation as one is autonomously motivated to engage in academic activities (go to class, study, apply for professional college) in order to obtain their degree <p>NO RELATIONSHIP <u>Autonomous motivation and dedication toward continuing university in near future</u></p> <ul style="list-style-type: none"> - “I could leave school at any time ... I thought about leaving school and taking a year off, then coming back”, “I can take a year off”, “it doesn’t matter when, I just got to get an education at some point”, “I’d take time off and like go travel and stuff, but I’d always come back” <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - differentiation between dedication toward: current courses, ultimately obtaining a degree, attending a professional college, and continuing university in near future

Controlling Motivation / Academic Dedication	<ul style="list-style-type: none"> - I think people think lower of people who do not pursue secondary education, but I think that ... I could leave school at anytime and I - like, I thought about leaving school and taking a year off, then coming back - I have to be better than other people to get into professional colleges to get a better future 	<p>RECIPROCAL RELATIONSHIP Controlling Motivation --> Dedication (positive relationship)</p> <ul style="list-style-type: none"> - societal pressure to attend university (belief others "think lower" of those who do not pursue secondary education) is related to high dedication to ultimately obtain a degree, but appears unrelated to obtain a degree immediately: "I thought about leaving school and taking a year off" <p>Dedication -> Controlling Motivation (positive relationship)</p> <ul style="list-style-type: none"> - high dedication to attend a professional college related to increased pressure to do better than others in order to be accepted
Intrinsic Motivation / Academic Achievement	<ul style="list-style-type: none"> - [the most powerful contributor to] the grades that I obtain, I can think of like, between because I study, because I like the information, because I want to do better than other people, because I want to get a good career - I think most of it is the future thing, just because I want a good career 	<p>UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Achievement (positive relationship)</p> <ul style="list-style-type: none"> - intrinsic motivation ("I like the information") is believed to contribute to high academic achievement (however, autonomous motivation is a greater contributor)
Autonomous Motivation / Academic Achievement	<ul style="list-style-type: none"> - I like to retain enough marks ... to get 85 plus, because like most of my high school marks are like 95 and higher and I heard that ... [you] had to expect your marks to go down like 10% [in university] so I was hoping like 85 plus ... to be good enough to get into a professional college is definitely a big thing for me - [selection committees] don't know you, they have nothing to look at but your marks, so therefore it's ... that is the only thing they look at pretty much - if I'm better than like all the people that I know, I have a chance higher of ... getting into med school... because why would they take the person who has a 65 over me who has like an 85 ... I feel that me being better than other people like correlates with me getting like higher marks and stuff like that and getting a better future - if ... I got a bad score on something, I think that that'd push me even harder to figure out I did wrong, figure out why I did wrong and that'd like give me more of a motivation to like go at it than if I stayed in the positive mark, I would like just continue doing what I was doing ... to get a bad mark I think would influence me more - I think [the most powerful contributor to] the grades that I obtain ... because I study ... because I want to get a good career - I think most of it is the future thing, just because I want a good career - my parents, we've never had like a lot of money, right? And I feel like that influences me to do better just so I can like have good stuff in the future, so I can like go on trips so I can do all that and stuff, and so I can just live a better future life kind of thing and that's what - I know that if I get good grades, I'll get into a professional college, and I'll get a good job and that'll lead to lots of money. 	<p>RECIPROCAL RELATIONSHIP Autonomous Motivation --> Achievement (positive relationship)</p> <ul style="list-style-type: none"> - believes most powerful contributor to her high achievement is her high autonomous motivation: "because I study ... because I want to get a good career" - very high autonomous motivation is related to increased achievement because it causes her to study more and work harder to achieve high marks <p>Achievement -> Autonomous Motivation (negative relationship, conditional)</p> <ul style="list-style-type: none"> - obtaining a low mark (low achievement) causes increased autonomous motivation to obtain higher marks in the future to balance out the low mark and to figure out what one did wrong - obtaining a high mark (high achievement) does not influence autonomous motivation as she "just continue[s] doing what [she's] doing" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - autonomously motivated to obtain high marks (achievement); feels that marks themselves are important for future acceptance to a professional college and "a better future"
Controlling Motivation / Academic Achievement	<ul style="list-style-type: none"> - maybe they saw when I was younger and stuff that I never really needed any push and so therefore it's - like, I was a Greystone scholar and stuff like that and so my parents have never really... not that they haven't cared about my grades, but it kind of comes so much to me - if somebody else was pressuring me too, I think that I'd be going so crazy that my marks would like not be good 	<p>RECIPROCAL RELATIONSHIP Controlling Motivation --> Achievement (negative relationship)</p> <ul style="list-style-type: none"> - belief that if she experienced controlling motivation (if somebody else was pressuring me), her achievement would decrease: "my marks would not be good" <p>Achievement -> Controlling Motivation (negative relationship)</p> <ul style="list-style-type: none"> - high academic achievement in the past is related to reduced controlling motivation: "maybe they saw when I was younger and stuff that I never really needed any push"

Intrinsic Motivation / Well-being	<ul style="list-style-type: none"> - I enjoy - it gives me happiness - I just love learning about the nutrition and then applying it to my regular life and food studies, and physical activities, all that jazz, makes me happy 	<p>UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Wellbeing (positive relationship) - possessing intrinsic motivation increases one's well-being</p> <p>CONCEPTUAL SIMILARITY - could argue that expressions of high intrinsic motivation are also expressions of high well-being: "I enjoy it, it gives me happiness"</p>
Autonomous Motivation / Well-being	<ul style="list-style-type: none"> - now that you've tried so hard and so long and just to quit? That, I don't know, I feel like that would have a negative effect on the rest of my life kind of thing 	<p>UNIDIRECTIONAL RELATIONSHIP Autonomous Motivation --> Wellbeing (positive relationship) - believes that a sudden drop in autonomous motivation after having been previously autonomously motivated would result in decreased well-being</p>
Controlling Motivation / Well-being	<ul style="list-style-type: none"> - not that I get teased or bullied or anything like that, but just, the satisfaction of ... I was always like the best in high school and the best in elementary school and I always had one of the top 1, 2, or 3 averages and I don't want anybody to have anything against me ... not that it would be against me, but if somebody ever got like a higher mark than me in elementary school or high school and they were like "oh, I got a higher mark than [interviewee 11]", they.. - like I don't know, stuff like that would just like bother me to the extreme - if my parents pressured me as well to be like be a doctor, be a doctor, be a doctor, and everyone else pressured me, like I think I'd for surely crack - my parents don't pressure me and my boyfriend doesn't pressure me, my friends don't pressure me, so if somebody else was pressuring me too, I think that I'd be going so crazy 	<p>UNIDIRECTIONAL RELATIONSHIP Controlling Motivation --> Wellbeing (negative relationship) - high controlling motivation (parental pressure, pressure from friends, pressure from partner) is expected to be related to decreased well-being (I would surely crack, I'd be going crazy) - high internal pressure to do well is also related to decreased well-being, especially when one does not do subjectively well (conditional relationship)</p>
Relationships Between Outcome Variables and Needs Satisfaction		
Autonomy Satisfaction/ Dedication	<ul style="list-style-type: none"> - Well I know that I don't really have to be a doctor, I can be whatever I want... I can take different classes, whatever I want to take, and I can... yea, that's it, I feel free to be myself - I never feel pressured to be anybody else and I feel good about myself, I'm usually myself all the time 	<p>UNIDIRECTIONAL RELATIONSHIP (positive relationship) Autonomy Satisfaction --> Dedication - high autonomy satisfaction is related to high dedication: "I can be whatever I want"</p>
Competence Satisfaction / Academic Dedication	<ul style="list-style-type: none"> - Exactly [I wouldn't enrol in a course unless I felt I was going to be good at it] I would not go into a business course. I don't understand money, I'm kind of broke all the time ... I probably wouldn't go - my confidence definitely makes me feel like I will be a good doctor, and then maybe it's the other way around a little bit too ... the idea of becoming a good doctor also gives me confidence, but I mostly feel like my confidence makes me feel like I'll be a good doctor 	<p>RECIPROCAL RELATIONSHIP</p> <p>Competence Satisfaction --> Dedication (positive relationship) - pre-existing competence satisfaction is related to increased dedication to enrol in a course - competence satisfaction within a specific field is related to increased dedication within that field</p> <p>Dedication -> Competence Satisfaction (positive relationship) - dedication toward a certain career is related to increased competence satisfaction within that field: "the idea of becoming a good doctor also gives me confidence"</p>

Competence Satisfaction / Academic Achievement	<ul style="list-style-type: none"> - beginning of my high school career I went through a period where I just memorize, I just took up information ... I don't know ... if I have a little bit of a photographic memory, but things just like came easily to me ... I'd get really high marks - my past marks are definitely a big thing [that makes me feel competent at university] - my marks have gone down a little... but I still feel really good about it and I still know I can explain things to people and I'm still good with it - if I concentrate on the negative aspects and I'm like "oh no, I'm not going to get a good mark" then I won't get a good mark ... you have to feel competent, think confident about yourself if you're to do well - if I was really really competent or I felt really really competent, and then I got a bad score on something, I think that that'd push me even harder to figure out I did wrong, figure out why I did wrong ... Yea [the bad mark wouldn't make me feel less competent, it would just] give me more of a motivation to like go at it - Yes [I think my feeling of competence is related to the grades I obtain] Like, you can't go into something feeling negative about it, you have to go into something feel positive about it 	<p>RECIPROCAL RELATIONSHIP Competence Satisfaction --> Achievement (positive relationship) - believes that one must "feel competent, think confident about yourself" in order to obtain high achievement</p> <p>Achievement -> Competence Satisfaction (facilitating relationship, possibly conditional) - high achievement (I'd get really high marks) is related to increased competence satisfaction (things just came easily to me) - but, low relative achievement (my mark have gone down a little) is not related to decreased competence satisfaction if one feels that they can still "explain things to people" and earn higher marks in the future if they "go at it" (may be dependent on high initial competence satisfaction)</p>
Autonomy Satisfaction / Well-being	<ul style="list-style-type: none"> - I find it so much easier to study here rather than at home ... so I spend a lot of time here and that - technically that isn't all on my own choice, but ... I've taught myself to learn better... here than I would at home and I teach myself to be happy with it ... I can't go home all the time, so I have to teach myself how to study at school and it's worked out to my benefit so I'm very happy 	<p>UNIDIRECTIONAL RELATIONSHIP Autonomy Satisfaction --> Wellbeing (positive relationship) - feeling free to choose where to study (autonomy satisfaction) is related to increased well-being (I'm very happy); possibly dependent on ability to re-frame situations that hinder autonomy into autonomy satisfying contexts</p>
Competence Satisfaction / Well-being	<ul style="list-style-type: none"> - the satisfaction of - I was always like the best and stuff - my marks have gone down a little - well, quite a bit, but I still feel really good about it and I still know I can explain things to people and I'm still good with it so it makes me happy - you got to think you're going to good ... I think those motivations have definitely pushed me to be positive and pushed me to do well academically - I usually do do better, so that [question is] a hard one - I imagine that I would be like a little bit negative - like, not negative by any means, but I would be like less competent with myself, but that's never been my situation before 	<p>UNIDIRECTIONAL RELATIONSHIP Competence Satisfaction -> Wellbeing (positive relationship) - high competence satisfaction (always the best, good with it, think you're going to do good) is related to high well-being (life satisfaction, makes me happy, positive) even if grades are relatively low (my marks have gone down a little) - low competence satisfaction expected to be related to decreased well-being</p>
Relationships Between Motivation Types and Needs Satisfaction		
Intrinsic Mot. / Autonomous Mot.	<ul style="list-style-type: none"> - to be good enough to get into a professional college is definitely a big thing for me... because I want to ... I'd love to pursue nutrition or pharmacy or medicine 	<p>CONTEXTUAL RELATIONSHIP - appears to possess both autonomous (I want to pursue) and intrinsic (I'd love to pursue) motivation toward attending a professional college but no evidence that these variables influence each other</p>
Intrinsic Motivation / Controlling Motivation	<ul style="list-style-type: none"> - I'm the only one in the world who puts pressure on myself, like my parents don't pressure me and my boyfriend doesn't pressure me, my friends don't pressure me, so if somebody else was pressuring me too, I think that I'd be going so crazy that my marks would like not be good and ... I feel like that would just be - I'd be trying so much harder and then I just wouldn't be liking it as much because I feel like if I was pressured to like something, to feel like I like something ... right now, I pressure myself a lot but if somebody else had to pressure me too into liking that stuff, then ... I just think that I wouldn't like it as much because I know it's kind of my choice, what I'm doing - if I was pressured to do something, like if my freedom was otherwise, I think that I'd be like, harder to like the stuff that I was doing - if I was forced to take anything else, I wouldn't feel as free and therefore I probably wouldn't enjoy it as much - if I was like super pressured, like if the freedom wasn't there for me to just pressure myself, then I might not enjoy it as much because then I might feel like crazy pressured 	<p>UNIDIRECTIONAL RELATIONSHIP Controlling Motivation -> Intrinsic Motivation (negative relationship) - believes that if she experienced controlling motivation (if somebody else was pressuring me, if I was pressured to like something, if I was pressured to do something, if I was forced to take anything, if I was super pressured), it would cause her to be less intrinsically motivated (I wouldn't like it as much, harder to like, I wouldn't enjoy it as much) - also believes that current high intrinsic motivation is related to her lack of controlling motivation</p> <p>possibly MEDIATED by autonomy satisfaction: "if I was forced to take anything else, I wouldn't feel as free and therefore I probably wouldn't enjoy it as much"</p>

Autonomous Motivation / Controlling Motivation	<ul style="list-style-type: none"> - if I develop these habits, because like these habits have already been like pushed into me to try hard to do good through like elementary school through high school and I feel like if I keep them up through university I'll keep them up ... all of my life, and that's really important to me not to give up now - I know that ... my parents think it's important that I do well ... other people it's important that I do well, but I think it's more of me pushing myself, it's always been more of me pushing myself than anybody else pushing me - when I was younger ... I never really needed any push and so therefore it's ... my parents have never really... not that they haven't cared about my grades, but it kind of comes so much to me and it's so much on myself to pressure myself to do well that they just have never really commented on it - I do think that there's like a negative prejudice, which I support as well, if that sounds weird, but like people who don't go to school and don't pursue secondary education ... there's like the negative aspect that's along with that, right? And I consider that a negative aspect, if I didn't get some sort of secondary education, I don't think that would be good - I feel like secondary education is important; I would have came here eventually because I think that there's a negative aspect to not pursuing education, like I think people think lower of people who do not pursue secondary education - if my parents pressured me as well to be like be a doctor, be a doctor, be a doctor, and everyone else pressured me ... I think I'd for surely crack because ... I put so much pressure on myself, seriously, I think I'm the only one in the world who puts pressure on myself, like my parents don't pressure me and my boyfriend doesn't pressure me, my friends don't pressure me, so if somebody else was pressuring me too, I think that I'd be going so crazy ... I'd be trying so much harder and then I just wouldn't be liking it as much ... right now, I pressure myself a lot 	<p>RECIPROCAL RELATIONSHIP</p> <p>Autonomous Motivation --> Controlling Motivation (negative relationship)</p> <ul style="list-style-type: none"> - the presence of high autonomous motivation may prevent controlling motivation: "I never really needed any push" and may also reduce <u>perceived controlling motivation</u>: "other people [think] it's important that I do well, but I think it's more of me pushing myself, it's always been more of me pushing myself than anybody else pushing me" <p>Controlling Motivation -> Autonomous Motivation (positive relationship, conditional)</p> <ul style="list-style-type: none"> - past controlling motivation (these habits have been pushed into me through elementary school) is related to increased autonomous motivation in the future (keeping up these habits is really important to me) IF one adopts the values underlying the controlling motivation - social pressure to attend university may lead to increased autonomous motivation IF one adopts these societal views: "I would have came here eventually because ... I think people think lower of people who do not pursue secondary education" - high controlling motivation is not necessary to obtain autonomous motivation: "I think I'm the only one in the world who puts pressure on myself; but, it does increase autonomous motivation ("I'd be trying so much harder") <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - strong autonomous motivation may be experienced in way similar to controlling motivation: "so much pressure on myself", "pushing myself", "I pressure myself a lot" - if one adopts societal views ("negative prejudice [toward people who don't pursue secondary education], which I support as well") then one may experience this social pressure as autonomous rather than controlling motivation <p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - autonomous and controlling motivation can be experienced simultaneously, but autonomous appears to be dominant: "my parents think it's important that I do well ... but I think it's more of me pushing myself, it's always been more of me pushing myself"
Intrinsic Motivation / Autonomy Satisfaction	<ul style="list-style-type: none"> - I feel like if I was pressured to like something ... like right now, I pressure myself a lot but if somebody else had to pressure me too into liking that stuff, then I don't know, I just think that I wouldn't like it as much because I know it's kind of my choice, what I'm doing - if I was pressured to do something, like if my freedom was otherwise, I think that I'd be ... harder to like the stuff that I was doing - if I was forced to take anything else, I wouldn't feel as free and therefore I probably wouldn't enjoy it as much - if I was like super pressured, like if the freedom wasn't there for me to just pressure myself, then I might not enjoy it as much because then I might feel like crazy pressured 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Autonomy Satisfaction -> Intrinsic Motivation (positive relationship)</p> <ul style="list-style-type: none"> - autonomy satisfaction ("it's kind of my choice, what I'm doing", feeling free) is related to increased intrinsic motivation (enjoyment, liking it) - lack of autonomy satisfaction ("if I was pressured") is expected to result in decreased intrinsic motivation ("I wouldn't like it as much")

<p>Intrinsic Motivation / Competence Satisfaction</p>	<ul style="list-style-type: none"> - I like being in school partly because I excel at it and it gives me confidence that I am a lot better than others at it - Yea, [I enjoy doing better than others] I like excelling at it and I do enjoy some stuff more than other people, therefore I'm better at it than them, but I also feel like I also do enjoy school a lot because I'm better at it than other people - [if it is] harder to like the stuff that I was doing ... I have to make myself understand the information, rather than just like memorizing it and skimming it over because it wouldn't come as easily to me - if something is interesting, then you can understand it more and therefore you'll be competent ... if you don't understand something, if I don't like something, it's hard to get interested in it and ... it's just harder to become competent with the information and to understand it more - I feel like it's cyclical for sure ... if you find something comes really really naturally, then like it will be competent for you ... if you were competent already in something, then you would like it ... you wouldn't like something that was really hard or not really easy for you to do ... that'd be like a professional swimmer disliking swimming, like that wouldn't make sense. So I feel like it for surely goes both ways but ... you have to start from the liking it and then go to the competence first, like it's really weird to find - like a professional swimmer wouldn't just go into - like, he'd like swimming and then he'd go into swimming lessons right? He wouldn't just go be here and someone be like "You're a good swimmer" and like he'd have to try it out first, therefore, you have to figure out if you like something and then understanding your competence in that, I don't think things go the other way, that you find out you're competent in it and then ... sometimes maybe ... but like normally you have to find out you like something, then be competent with it - yea, rather than the other way around, being competent with something and then deciding you like it 	<p>RECIPROCAL RELATIONSHIP</p> <ul style="list-style-type: none"> - "I feel like it's cyclical for sure"; "I feel like it for surely goes both ways" <p>Intrinsic Motivation --> Competence Satisfaction (positive relationship)</p> <ul style="list-style-type: none"> - high intrinsic motivation causes increased competence satisfaction: "I do enjoy some stuff more than other people, therefore I'm better at it than them"; "if something is interesting, then you can understand it more and therefore you'll be competent" - low intrinsic motivation ("harder to like the stuff") is related to decreased competence satisfaction ("it wouldn't come as easily to me") <p>Competence Satisfaction -> Intrinsic Motivation (positive relationship)</p> <ul style="list-style-type: none"> - high competence satisfaction causes increased intrinsic motivation: "I like being in school partly because I excel at it and it gives me confidence", "I also do enjoy school a lot because I'm better at it than other people"; "if you were competent already in something, then you would like it" - low competence satisfaction causes decreased intrinsic motivation: "if you don't understand something ... it's hard to get interested in it"; "you wouldn't like something that was really hard or not really easy for you to do" <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - feels that the reciprocal relationship must begin with intrinsic motivation: "you have to start from the liking it and then go to the competence first"
<p>Autonomous Motivation / Autonomy Satisfaction</p>	<ul style="list-style-type: none"> - I find it so much easier to study here rather than at home ... because I live on the West side and ... to bus here every single day is just annoying, so I spend a lot of time here and that - technically that isn't all on my own choice, but I've learned, like - I think I've taught myself to learn better ... here than I would at home ... I have to teach myself how to study at school and it's worked out to my benefit 	<p>UNIDIRECTIONAL RELATIONSHIP: Autonomous Motivation --> Autonomy Satisfaction (positive relationship, facilitating)</p> <ul style="list-style-type: none"> - high autonomous motivation to study and do well at school may promote autonomy satisfaction even when choices are limited (forced to stay long hours on campus due to commute beyond her control, but frames this as choosing to study on campus because she now prefers this)
<p>Autonomous Motivation / Competence Satisfaction</p>	<ul style="list-style-type: none"> - I understood it all rather than just memorizing the topics, so I didn't have to do a lot of studying for that - you can't go into it thinking that you're horrible, that you're going to fail ... even if you think the worst, that you're going to fail the test, you have to go into it thinking "okay, I don't know all the information, but I know a lot of it and I'm going to make it work for me" like you have to think that stuff or else, like it's already predetermined, right? So, I think it's very important that you set those goals for yourself and you be confident in yourself - if I was really really competent or I felt really really competent, and then I got a bad score on something, I think that that'd push me even harder to ... figure out why I did wrong and that'd like give me more of a motivation to like go at it ... not that I think I should get bad marks to do better, but ... if I stayed in the positive mark, I would like just continue doing what I was doing and that might not always be enough ... to get a bad mark I think would influence me more - I feel like my sense of competence definitely influences my ... feeling of importance, ... because I think I'm competent, I will think that I am going to be a good doctor ... the idea of being a good doctor also makes me confident - not that I don't think that it's possible for me to fail, but I think ... I just push myself and I won't fail ... that's just my own pressures in my head 	<p>RECIPROCAL RELATIONSHIP Autonomous Motivation --> Competence Satisfaction (positive relationship)</p> <ul style="list-style-type: none"> - high autonomous motivation is related to high competence satisfaction: "I just push myself and I won't fail"; "the idea of being a good doctor also makes me confident" <p>Competence Satisfaction -> Autonomous Motivation (negative relationship)</p> <ul style="list-style-type: none"> - high competence satisfaction decreases autonomous motivation within specific courses: "I understood it all ... so I didn't have to do a lot of studying for that" <p>(positive relationship, conditional)</p> <ul style="list-style-type: none"> - high competence satisfaction is related to increased autonomous motivation IF one obtains information that contradicts their competence satisfaction (i.e. a low score): "if I was really really competent ... and then I got a bad score ... I think that that'd push me even harder to ... figure out [what] I did wrong and ... give me more of a motivation to like go at it ... [but] if I stayed in the positive mark, I would ... continue doing what I was doing ... a bad mark I think would influence me more"

Controlling Motivation / Autonomy Satisfaction	<ul style="list-style-type: none"> - I pressure myself a lot but if somebody else had to pressure me too into liking that stuff ... I just think that I wouldn't like it as much because I know it's kind of my choice, what I'm doing - I know that I don't really have to be a doctor, I can be whatever I want ... I can take different classes, whatever I want to take ... I feel free to be myself - I never feel pressured to be anybody else and I feel good about myself, I'm usually myself all the time - if I was forced to take anything else, I wouldn't feel as free - if I was like super pressured, like if the freedom wasn't there for me to just pressure myself, then I might not enjoy it as much because then I might feel like crazy pressured 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Controlling Motivation --> Autonomy Satisfaction (negative relationship)</p> <ul style="list-style-type: none"> - experiencing controlling motivation hinders autonomy satisfaction: "if I was forced to take anything else, I wouldn't feel as free" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - uses lack of autonomy satisfaction to define/articulate controlling motivation: "I feel free to be myself - I never feel pressured to be anybody else", "if I was forced to take anything else, I wouldn't feel as free", "if I was like super pressured, like if the freedom wasn't there for me"
Controlling Motivation / Competence Satisfaction	<ul style="list-style-type: none"> - I was always like the best in high school and the best in elementary school and I always had one of the top 1, 2, or 3 averages and I don't want anybody to have anything against me ... if somebody ever got like a higher mark than me in elementary school or high school and they were like "oh, I got a higher mark than [Interviewee 11]" ... stuff like that would just like bother me to the extreme, so I think it's that that kind of motivates me to do better than they are - if I was socially pressured I feel like that would be a negative thing, right? and since because I don't have a lot of social pressure, except for in myself, I've never been told like negative things, or even like anything in general besides "oh yea, she's a good student" and stuff like that, therefore, I think that gives me more confidence to do well 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Controlling Motivation --> Competence Satisfaction (negative and positive relationship)</p> <ul style="list-style-type: none"> - (negative) not experiencing controlling motivation is related to increased competence satisfaction: "I don't have a lot of social pressure ... therefore, I think that gives me more confidence to do well" - (positive) social pressure to do better than others is related to increased desire for competence satisfaction: "if somebody ever got like a higher mark than me [they would gloat and] that would just like bother me to the extreme, so I think it's that that kind of motivates me to do better than they are"
Autonomy Satisfaction / Competence Satisfaction	<ul style="list-style-type: none"> - if I was pressured to do something, like if my freedom was otherwise, I think that [it would be] harder to like the stuff that I was doing ... therefore I [would] have to make myself understand the information, rather than just like memorizing it and skimming it over because it wouldn't come as easily to me - I'd still try my hardest to be better than other people if like my freedom wasn't so good, but it'd just probably would be a little bit harder 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Autonomy Satisfaction -> Competence Satisfaction (positive relationship)</p> <ul style="list-style-type: none"> - believes that decreased autonomy satisfaction (if my freedom wasn't so good) would be related to decreased competence satisfaction (it wouldn't come as easily to me) <p>possibly MEDIATED by Intrinsic Motivation</p>
Relationships Between Achievement Goal Theory Constructs and Outcomes		

Mastery-Approach Goals / Performance-Approach Goals	<ul style="list-style-type: none"> - I enjoy the learning too ... I know going to class and stuff, it's hard for some of my friends but I really enjoy learning - beginning of my high school career I went through a period where I just memorize, I just took up information ... things just like came easily to me, but then I wasn't able to describe it ... I'd get really high marks so my friends would say "oh can you teach me?" so I'd be like "sure", but I realized that I don't understand the information, I could just regurgitate it very very very well - I think it's important to understand your material because ... if you can understand it and if you can explain it to somebody else, like that's so much learning and you get so much out of that - I feel like [I set specific numerical marks as goals because] that would be above everybody else for sure ... I feel like the understanding would have to come with that, but that's on like kind of a separate note - to get that high of a mark I have to understand the material, but that high of mark is the ultimate thing rather than understanding ... I'm a big believer in understanding, but if it had to happen that I would have to memorize something rather than understand it, I'd do that right away to get a higher mark than somebody - understanding and getting a good mark ... those definitely relate to each other, I think if you understand it, you for surely get a good mark - if you understand things ... then you will do better than other people - being better than other people, I think it's important right now ... for the basic steps for getting a career, but once I get the career, I don't think I'll feel that way anymore, especially ... once I get into the college ... [once I am admitted into a professional college, I will be more focused on learning the material] for sure, and ... not that I'm not learning the material right now, but once I get to my school ... that motivation there to be better than other people will be limited because I know that it won't be as much of a competition anymore 	<p>UNIDIRECTIONAL RELATIONSHIP Mastery-approach goals --> Performance-approach goals (positive casual relationship)</p> <ul style="list-style-type: none"> - obtainment of mastery goals (understanding) will cause one to obtain performance goals (get good marks, outperform others): "if you understand it, you for surely get a good mark", "to get that high of a mark I have to understand the material", "if you understand things ... then you will do better than other people" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - compares her desire to set mastery goals (enjoyment of learning) to others: "it's hard for some of my friends but I really enjoy learning" - demonstration of competence (being able to describe content to others) used as an indicator of mastery goal obtainment (truly understanding the information) <p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - mastery (learning, take up information, memorize, understand information) and performance goals (describe it, get high marks, regurgitate information, explain it to someone else) exist simultaneously <p>OTHER COMMENTS</p> <ul style="list-style-type: none"> - performance goals are ultimate focus for this student although she also sets mastery goals; but she believes mastery goals will become main focus once she is admitted to a professional college (because she will no longer have to compete with other students for admittance)
Mastery-Approach Goals / Dedication	<ul style="list-style-type: none"> - once I get the career, I don't think I'll [set performance goals] anymore, especially like once I get into the college, the official college, I don't think I'll feel that way anymore. [Once I'm accepted into a professional college, I will feel more focused on learning the material] Oh yea, for sure 	<p>NO RELATIONSHIP</p> <ul style="list-style-type: none"> - dedication to complete a professional degree appears unrelated to mastery goals; she currently does not set mastery goals because focus is on doing better than others to be admitted to professional college but believes she will set mastery goals once she is admitted to professional college, dedication is high in both instances
Mastery-Approach Goals / Academic Achievement	<ul style="list-style-type: none"> - most of my high school marks are like 95 and higher and I heard that .. for university, you had to expect your marks to go down like 10% so I was hoping like 85 plus - I'd get really high marks so my friends would say "oh can you teach me?" so I'd be like "sure", but I realized that I don't understand the information, I could just regurgitate it very very very well - to get that high of a mark I have to understand the material, but that high of mark is the ultimate thing rather than understanding ... I'm a big believer in understanding, but if it had to happen that I would have to memorize something rather than understand it, I'd do that right away to get a higher mark - understanding and getting a good mark ... those definitely relate to each other, I think if you understand it, you for surely get a good mark - you don't understand the [content] completely and then go fail the exam, like that doesn't work like that - I think my marks will still be as good and as high once I have to like learn the material - well, not that I'm not learning the material right now 	<p>UNIDIRECTIONAL RELATIONSHIP Mastery-approach Goals --> Achievement (positive relationship)</p> <ul style="list-style-type: none"> - obtainment of mastery goals is related to high achievement: "if you understand it, you for surely get a good mark" - sets mastery goals in order to obtain high achievement: "to get that high of a mark I have to understand the material" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - uses achievement (specific mark) as an indicator of having obtained a mastery goal; also bases specific marks on her own personal achievement <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - desire to obtain mastery goals in order to earn high grades; however, the grades are valued more than the obtainment of the mastery goal - if one obtains mastery goals, they will also obtain high achievement HOWEVER, they may have high achievement without obtaining mastery goals if they are able to "regurgitate" the information

Mastery- Approach Goals / Well-being	<ul style="list-style-type: none"> - I just love learning about the nutrition and then applying it to my regular life and food studies, and physical activities, all that jazz, makes me happy 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Mastery-approach Goals --> Wellbeing (positive relationship)</p> <ul style="list-style-type: none"> - obtaining mastery goals (“learning about nutrition” and “applying it to my regular life”) or attempting to obtain mastery goals causes increased well-being (“makes me happy”)
Performance- Approach Goals / Academic Dedication	<ul style="list-style-type: none"> - a lot of people that I know ... now that there's ... no homework marks or anything like that now that we're in university, they're just kind of like oh and shrug it off and quit, right? But, I just don't see, like now that you've tried so hard and so long and just to quit? ... I feel like that would have a negative effect on the rest of my life - I think [a specific numerical grade is] definitely needed, like as horrible as it is, like I could be the nicest person ever and could be a great doctor ... but I could only have like 65% in school, they're not going to take me - if I'm better than like all the people that I know, I have a chance higher of ... getting into med school than they are, because why would they take the person who has a 65 over me who has like an 85 - I have to be better than other people to get into professional colleges to get a better future - [my desire to get into a professional college comes before] the goal of beating other people.. Yea, yea. - you ... can't be like, “oh, I'm going to give up on chemistry because I failed the lab” - I think [the most powerful contributor to] the grades that I obtain [is] ... because I want to do better than other people, because I want to get a good career - I think most of it is the future thing ... because I want a good career - being better than other people, I think it's important right now ... just for the basic steps for getting a career, but once I get the career, I don't think I'll feel that way anymore ... once I get into ... the official college, I don't think I'll feel that way anymore 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Dedication -> Performance-approach goals (positive relationship)</p> <ul style="list-style-type: none"> - high dedication to obtain a degree in a competitive field (medical field) causes one to set performance goals (obtain high grades, be better than others) as one believes that obtainment of these goals is needed to be accepted into this field: “I could be the nicest person ever and could be a great doctor ... but I could only have like 65% in school, they're not going to take me”; “I have to be better than other people to get into professional colleges” - high dedication (I want a good career) is also related to obtainment of performance goals (high grades) <p>Performance-approach goals --> Dedication (no relationship)</p> <ul style="list-style-type: none"> - not obtaining a performance goal does not affect one's dedication: “you ... can't be like, ‘oh, I'm going to give up on chemistry because I failed the lab’” <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - context dependent; believes performance goals will no longer be the main focus once she is admitted to a professional college (because she will no longer have to compete with other students for admittance)
Performance- Approach Goals / Academic Achievement	<ul style="list-style-type: none"> - if ... I can do better than other people ... whether, getting good marks on tests and stuff like that, that motivates me as well - I like to retain enough marks and stuff, to like I like to get 85 - I'd get really high marks - like to get that high of a mark ... that high of mark is the ultimate thing rather than understanding ... if it had to happen that I would have to memorize something rather than understand it, I'd do that right away to get a higher mark than somebody - if I'm better than like all the people that I know, I have a chance higher of ... getting into med school than they are, because why would they take the person who has a 65 over me who has like an 85 ... I feel that me being better than other people like correlates with me getting like higher marks - I think [the most powerful contributor to] the grades that I obtain [is] because ... because I want to do better than other people 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Performance-approach goals --> Achievement (positive relationship)</p> <ul style="list-style-type: none"> - setting performance goals (I want to do better than other people) is believed to cause high academic achievement <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - uses achievement (good grades) as an indicator of having obtained a performance goal (demonstrated competence, outperformed others): “to get a higher mark than somebody” - primary goal is to do better than others (in order to be admitted into a competitive college) but believes obtaining high mark is inherently related to obtainment of this goal (you can not have one without the other)

Performance-Approach Goals / Well-being	<ul style="list-style-type: none"> - I enjoy - it gives me happiness to do well and like even to do better than other people - I like to retain enough marks and stuff ... I like to get 85 plus - the satisfaction of - I was always like the best and stuff ... I was always like the best in high school and the best in elementary school and I always had one of the top 1, 2, or 3 averages ... if somebody ever got like a higher mark than me in elementary school or high school and they were like "oh, I got a higher mark than [Interviewee 11]" ... that would just like bother me to the extreme - if you do bad on something ... you can't be concentrated on that, you have to just think "I'm going to do better next time" because then that's all you think about is your bad mark, and that's like - I've been stuck in that situation before and that is crap, like you don't get out of there, you just have to think about the next best thing and how you're going to do better and how you're going to improve or else you'll be stuck in that hole, and that sucks - if I didn't do better than other students, would I be as positive? I think I... I don't know, that's a hard one ... I usually do do better, so that's a hard one - I imagine that I would be like a little bit negative... I would be like less competent with myself, but that's never been my situation before 	RECIPROCAL RELATIONSHIP Performance-approach goals --> Wellbeing (positive relationship, possibly conditional) <ul style="list-style-type: none"> - obtainment of performance goals causes increased well-being: "I enjoy - it gives me happiness to do well and like even to do better than other people", "the satisfaction of - I was always like the best" - not obtaining performance goals (if somebody ever got a higher mark than me) causes decreased well-being (bother me to the extreme): "all you think about is your bad mark ... I've been stuck in that situation before and that is crap...you'll be stuck in that hole, and that sucks" - possibly conditional upon usually obtaining high performance goals Wellbeing -> Performance-approach goals (negative relationship) <ul style="list-style-type: none"> - poor well-being may be related to increased performance goals as student suggests that way to overcome poor well-being caused by not obtaining a performance goal is to set future performance goals and focus on those: "you just have to think about ... how you're going to do better and how you're going to improve"
Relationships Between Achievement Goal Theory and Self-Determination Theory Constructs		
Mastery-Approach Goals / Intrinsic Motivation	<ul style="list-style-type: none"> - I enjoy the learning too ... I know going to class and stuff, it's hard for some of my friends but I really enjoy learning - I just love learning about the nutrition and then applying it to my regular life and food studies, and physical activities, all that jazz, makes me happy - I like soaking up new information and learning new things ... I'm really interested in ... how the body works, and, yea that gives me interest, so I like learning about that - I like university and I like learning therefore I came to it - I like being here partly because ... I like learning - I like being here because I like learning - [if it was] harder to like the stuff that I was doing [I'd] have to make myself understand the information, rather than just like memorizing it and skimming it over because it wouldn't come as easily - [if in a situation where] I might not enjoy it as much ... I think it'd be like pretty much the same and I just want to understand the material more - if something is interesting, then you can understand it more ... if you don't understand something, if I don't like something, it's hard to get interested in it and it's hard to ... understand it more and understanding is competence 	RECIPROCAL RELATIONSHIP Intrinsic Motivation --> Mastery-approach Goals (positive or negative relationship? - possibly conditional) <ul style="list-style-type: none"> - when one experiences intrinsic motivation (interest), they set mastery goals (to learn): "that gives me interest, so I like learning about that" and find it easier to obtain mastery goals: "if something is interesting, then you can understand it more" - when one experiences low intrinsic motivation (it's hard to like the material), they also set mastery goals (make myself understand the information) "because it wouldn't come as easily" - also believes that intrinsic motivation is unrelated to mastery goals: "[if in a situation where] I might not enjoy it as much ... I think it'd be like pretty much the same and I just want to understand the material more" - possibly conditional on strong desire to set mastery goals Mastery-approach Goals -> Intrinsic Motivation (positive relationship) <ul style="list-style-type: none"> - setting and obtaining mastery goals (to learn) increases intrinsic motivation (enjoyment, happiness): "I really enjoy learning", "I just love learning"; "[learning] makes me happy", "I like soaking up new information" "I like being here because I like learning" - not obtaining mastery goals hinders intrinsic motivation: "if you don't understand something ... it's hard to get interested in it"

Mastery- Approach Goals / Autonomous Motivation	<ul style="list-style-type: none"> - I feel like that's what motivates me to do homework and to do math questions over and over again is that's how I learn is by repetitively and writing stuff down - Yea [it's important to attend because it facilitates my learning] - I think it's important to understand your material because like if you can understand it and if you can explain it to somebody else, like that's so much learning and you get so much out of that - you're just going to benefit if you understand how the information all ties together than if you just memorize - if I understand things it's like always there - right? Rather than just memorizing and then it kind of like, to me memorizing is really really like limited, like it's only in your mind for that good day after that, and then man it is gone, right? So, therefore, I think that if you understand it, it's in you for longer - because I understood it all rather than just memorizing the topics, so I didn't have to do a lot of studying for that and stuff 	<p>RECIPROCAL RELATIONSHIP</p> <p>Autonomous Motivation --> Mastery-approach Goals (positive relationship)</p> <ul style="list-style-type: none"> - belief that knowing the information is important and that you will benefit from knowing the information long-term (autonomous motivation) is related to the setting of mastery goals (understanding how the information all ties together) <p>-</p> <p>Mastery-approach Goals -> Autonomous Motivation (positive or negative relationship, conditional)</p> <ul style="list-style-type: none"> - desire to obtain mastery goal (learn) is related to increased autonomous motivation to engage in activities that one feels will lead to learning (do homework, do problems, attend lectures) - obtainment of mastery goal is related to decreased autonomous motivation for that specific course: "because I understood it all ... I didn't have to do a lot of studying" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - student is autonomously motivated to obtain mastery goals; does not necessarily mean that autonomous motivation causes one to set mastery goals but rather it may only be that both mastery goals and autonomous motivation exist in the same context: "it's important to understand your material"
Mastery-App. Goals / Controlling Mot.	<ul style="list-style-type: none"> - if I was like super pressured, like if the freedom wasn't there for me to just pressure myself ... I think it'd be like pretty much the same and I just want to understand the material more 	<p>NO RELATIONSHIP</p> <ul style="list-style-type: none"> - believes she would set mastery goals (want to understand the material) whether or not she experienced controlling motivation (if I was like super pressured)
Mastery- Approach Goals / Autonomy Satisfaction	<ul style="list-style-type: none"> - I think that [my goal to understand the material] would be even more evident [if I didn't feel as free to choose], like if I was pressured to do something, like if my freedom was otherwise, I think that I'd be like, harder to like the stuff that I was doing, right? So therefore I have to make myself understand the information, rather than just like memorizing it and skimming it over because it wouldn't come as easily to me - if the freedom wasn't there for me to just pressure myself, then ... I think it'd be like pretty much the same and I just want to understand the material more 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Autonomy Satisfaction -> Mastery-approach Goals (negative relationship)</p> <ul style="list-style-type: none"> - experiences autonomy satisfaction and sets mastery goals, but believes that if autonomy satisfaction was lower (if the freedom wasn't there, if I was pressured, if my freedom was otherwise), she would be more likely to set mastery goals because "I have to make myself understand the information, rather than just like memorizing it ... because it wouldn't come as easily to me"

Mastery- Approach Goals / Competence Satisfaction	<ul style="list-style-type: none"> - I also feel competent that like I can go and explain things to my friends and I can understand the material well - Yea [I feel very competent because I understand the material while I'm here] - to be competent, you have to understand the information - you have to understand something to have competence with it ... understanding [is] something that's directly related to competence like, you don't understand the ... system completely and then go fail the exam ... that doesn't work like that, to understand something is to be competent in it - if you understand things, then you're competent - if ... you can understand it more and therefore you'll be competent ... if you don't understand something ... then it's hard to be comp - ... it's just harder to become competent with the information and to understand it more and understanding is competence 	UNIDIRECTIONAL RELATIONSHIP Mastery-approach Goals -> Competence Satisfaction (positive relationship) <ul style="list-style-type: none"> - obtainment of mastery goals (understand the material well) causes increased competence: "if you understand things, then you're competent" - obtainment of mastery goals are necessary in order for competence to be satisfied: "to be competent, you have to understand the information" and competence will always be satisfied if mastery goals are obtained: "to understand something is to be competent in it" - not obtaining mastery goals causes decreased competence satisfaction: "if you don't understand something... it's just harder to become competent with the information" CONCEPTUAL SIMILARITY - no clear distinction between obtainment of mastery goals and competence satisfaction: "I feel competent that ... I can understand the material well", "understanding is competence"; "to understand something is to be competent in it"
Performance- Approach Goals / Intrinsic Motivation	<ul style="list-style-type: none"> - I enjoy the learning too so like it's not as hard for me to be academically motivated than other kids ... I know going to class and stuff, it's hard for some of my friends but I really enjoy learning - I enjoy - it gives me happiness to do well and like even to do better than other people ... if ... I can do better than other people ... in like whether, getting good marks on tests ... that motivates me as well - Yea, Mhmm [I enjoy getting good marks and doing better than other students] ... I like to do better than other people ... and then, I don't like to get worse marks than other people either - I like being in school partly because I excel at it and it gives me confidence that I am a lot better than others at it - I like being here because the information comes easier to me than other people ... then I can do better at it than other people, and therefore it makes me happy to be here - I feel like it could go both ways [doing better than others make me enjoy it and my enjoyment of it makes me do better than others], but I feel like the part where I enjoy it because I'm better than other people is a lot bigger than it should be in like a humble person ... but yea, I think it's for surely both ways and I do enjoy some stuff more than other people, therefore I'm better at it than them, but I also feel like I also do enjoy school a lot because I'm better at it than other people, which probably isn't the most humble thing, but it's true in my case 	RECIPROCAL RELATIONSHIP - I feel like it could go both ways Intrinsic Motivation --> Performance-approach Goals (positive relationship) <ul style="list-style-type: none"> - increased intrinsic motivation is related to obtainment of performance goals: "I do enjoy some stuff more than other people, therefore I'm better at it than them" Performance-approach Goals -> Intrinsic Motivation (positive relationship) <ul style="list-style-type: none"> - obtaining performance goals causes increased intrinsic motivation: "I enjoy - it gives me happiness to do well and like even to do better than other people ... that motivates me"; "I like being in school partly because I excel at it and ... am a lot better than others at it"; "I enjoy it because I'm better than other people" OTHER COMMENTS: <ul style="list-style-type: none"> - performance goals —> increased intrinsic motivation direction is far more prominent/salient for this student than the intrinsic motivation —> performance goals direction - acknowledges that admitting to increased enjoyment as a result of doing better than others goes against social norms: "probably isn't the most humble thing"

<p>Performance-Approach Goals / Autonomous Motivation</p>	<ul style="list-style-type: none"> - I want the benefit of doing well in life ... if I am a good student and if I go to class and if I study I'll become successful in the future - how I learn is like listening to the professor talk ... when I'm writing my test later, something will come up and I'll be like "oh yea, that's what happened there", so I feel like I'm motivated to go to class because of that little thing that'll happen in my head when I'm writing my exams. - that's really important to me not to give up now because like a lot of people that I know, they... now that there's ... no homework marks or anything like that ... they're just kind of like oh and shrug it off and quit - if I just slack off for my first year, like I know most people I know are doing, then I'm not going to want to try harder in those years, it's going to be that much harder to ... start keeping up again - it's so much on myself to pressure myself to do well - I like to get 85 plus, because like most of my high school marks are like 95 and higher and I heard that ... for university, you had to expect your marks to go down like 10% so I was hoping like 85 plus ... to be good enough to get into a professional college ... I think [an 85 is] definitely needed [to attend professional college], like as horrible as it is, like I could be the nicest person ever and could be a great doctor ... but I could only have like 65% in school, they're not going to take me - they don't know you, they have nothing to look at but your marks, so therefore ... it is that that's the only thing they look at, that is the only thing they look at pretty much and that's what I've accepted - Well, not every body can become a doctor ... they only take so many people, so therefore, if I'm better than ... all the people that I know, I have a chance higher of ... getting into med school than they are, because why would they take the person who has a 65 over me who has like an 85 ... I feel that me being better than other people like correlates with me getting like higher marks and stuff like that and getting a better future - I have to be better than other people to get into professional colleges to get a better future - a part of me thinks that once I get into these colleges ... because I'm sure that I'm going to be a pharmacist for sure - because I know that I'm going to be a doctor for sure, that perhaps that motivation to do better than other people will like die more - being better than other people, I think it's important right now, but like just for the basic steps for getting a career, but once I get the career, I don't think I'll feel that way anymore, especially ... once I get into the college, the official college, I don't think I'll feel that way anymore 	<p>RECIPROCAL RELATIONSHIP</p> <p>Autonomous Motivation -> Performance-approach Goals (positive relationship, possibly conditional)</p> <ul style="list-style-type: none"> - Autonomous motivation to attend a professional college in order to be "successful in the future" and "have a better life" causes one to set performance goals: "I was hoping like 85 plus ... to be good enough to get into a professional college"; "I have to be better than other people to get into professional colleges to get a better future" (may be dependent on belief that high performance goals are needed to obtain desired future career) - believes that once autonomous motivation to be accepted into a professional college is no longer present (i.e. after she is accepted into medical school), she will no longer set performance goals <p>Performance-approach Goals -> Autonomous Motivation (positive relationship, conditional)</p> <ul style="list-style-type: none"> - desire to obtain performance goals (do well on an exam) causes increased autonomous motivation to attend the class if one believes class attendance will aid in the obtainment of performance goals - comparing one's self to others who are less autonomously motivated increases one's own autonomous motivation: "that's really important to me not to give up now because like a lot of people that I know, they ... just kind of ... shrug it off and quit"; "if I just slack off ... like I know most people I know are doing, then ... it's going to be that much harder to ... start keeping up again" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - one may be autonomously motivated to do well in the future which is conceptually similar to setting future performance goals - experiences autonomous motivation to obtain performance goals (unclear whether this reflects pure autonomous motivation or pure performance goals): "pressure myself to do well"; "motivation to do better than other people"; "being better than other people, I think it's important right now"
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Performance-Approach Goals / Controlling Motivation	<ul style="list-style-type: none"> - these habits have already been like pushed into me to try hard to do good through like elementary school through high school - my parents think it's important that I do well ... and other people it's important that I do well - no one every really pressured me into - it's just the competition aspect, more than anything of like the social thing but ... I don't compete with my friends for marks, it's just my internal self being like "I've got to get a better mark than this person" sort of thing - not that I get teased or bullied or anything like that, but just, the satisfaction of ... I was always like the best in high school and the best in elementary school and I always had one of the top 1, 2, or 3 averages and I don't want anybody to have anything against me ... if somebody ever got like a higher mark than me in elementary school or high school and they were like "oh, I got a higher mark than [interviewee 11]" ... that would just like bother me to the extreme, so I think it's that that kind of motivates me to do better than they are - I have to be better than other people to get into professional colleges to get a better future - they don't pressure me by any means, they just like ... being around others who are wanting to do well motivates me to do well as well 	<p>RECIPROCAL RELATIONSHIP Controlling Motivation --> Performance-approach Goals (positive relationship) - pressure from other students to maintain top performance (controlling motivation) causes one to set further performance goals ("motivates me to do better than they are")</p> <p>Performance-approach Goals -> Controlling Motivation (positive relationship) - obtainment of performance-approach goals ("I was always like the best in high school and the best in elementary school and I always had one of the top 1, 2, or 3 averages") is related to increased pressure from other students to maintain this performance</p> <p>CONCEPTUAL SIMILARITY - experiences controlling motivation to obtain performance goals: "[it's been] pushed into me to try hard to do good"; "my parents thing it's important that I do well"; "I've got to get a better mark than this person"; "I have to be better than other people" but no clear evidence as to the direction in which these variables influence each other</p>
Performance-Approach Goals / Autonomy Satisfaction	<ul style="list-style-type: none"> - I feel like I have the freedom to do whatever I want to do and, yea, I feel like being crazy and being like the best is one of my goals for sure, so, I feel like I have freedom to not choose that though - Yea, I think so, for sure [if I didn't have this sense of freedom, I'd probably still set the same goals to do better than others] ... I'd still try my hardest to be better than other people if like my freedom wasn't so good, but it'd just probably would be a little bit harder 	<p>UNIDIRECTIONAL RELATIONSHIP Autonomy Satisfaction --> Performance-approach Goals (positive relationship) - believes performance goals would be harder to obtain if her autonomy was not satisfied</p> <p>CONTEXTUAL RELATIONSHIP - experiences high autonomy satisfaction and sets performance goals but believes she would also set performance goals if she experienced low autonomy satisfaction (no relationship)</p>
Performance-Approach Goals / Competence Satisfaction	<ul style="list-style-type: none"> - beginning of my high school career I went through a period where I just memorize, I just took up information ... I have a little bit of a photographic memory, but things just like came easily to me, but then I wasn't able to describe it to like - I'd get really high marks so my friends would say "oh can you teach me?" so I'd be like "sure", but I realized that I don't understand the information, I could just regurgitate it very very very well - I was always like the best in high school and the best in elementary school and I always had one of the top 1, 2, or 3 averages and I don't want anybody to have anything against me ... if somebody ever got like a higher mark than me in elementary school or high school and they were like "oh, I got a higher mark than [interviewee 11]" ... that would just like bother me to the extreme, so I think it's that that kind of motivates me to do better than they are - I excel at it and it gives me confidence that I am a lot better than others at it ... it gives me confidence - I also feel competent that like I can go and explain things to my friends - that's what makes me feel like I'll do well in university as well, that I can help others understand - my marks have gone down ... quite a bit, but I still feel really good about it and I still know I can explain things to people and I'm still good with it - if I concentrate on the negative aspects and I'm like "oh no, I'm not going to get a good mark" then I won't get a good mark, like you put yourself - you have to feel competent, think confident about yourself if you're to do well - if you understand things, then you're competent, and then you will do better than other people - you got to think you're going to good ... I think those motivations have definitely pushed me to be positive and pushed me to do well academically 	<p>RECIPROCAL RELATIONSHIP Competence Satisfaction -> Performance-approach Goals (positive relationship) - high competence satisfaction is related to obtainment of performance goals: "you got to think you're going to good ... to do well"; "[if] you're competent ... you will do better than other people"; "you have to feel competent, think confident about yourself if you're to do well"; "things just came easily to me... I'd get really high marks"</p> <p>- low competence satisfaction is related to not obtaining performance goals: "if ... I'm like "oh no, I'm not going to get a good mark" then I won't get a good mark"</p> <p>- high competence satisfaction is also related to the desire to set performance goals to maintain this sense of competence</p> <p>Performance-approach Goals -> Competence Satisfaction (positive relationship, conditional) - obtainment of performance goals causes increased competence satisfaction: "that's what makes me feel like I'll do well in university as well, that I can help others understand"; "it gives me confidence that I am a lot better than others"</p> <p>- HOWEVER, obtaining good marks does not lead to competence satisfaction if other performance goals (being able to demonstrate knowledge by explaining it to others) are not obtained; similarly, not obtaining certain performance goals (my marks have gone down) does NOT cause decreased competence satisfaction (but I still feel really good about it) IF one has obtained other performance goals (I know I can explain the content to others).</p>

E-3. VARIABLE MATRIX FOR INTERVIEWEE I3

Explanations of Constructs as Experienced by Interviewee I3

Construct	Explanation	Comments
Intrinsic Motivation	<p>- I also enjoy the stuff that I study as well so that's a pretty big reason.</p> <p>- in the last couple years of school ... it's been a lot more related to what I came to school for for Kinesiology so I'm trying to get into a Masters program of physio after ... the stuff I'm studying is touched on a lot more, the stuff that I'm interested in and I guess through like enjoying all of the work and stuff too, I've applied for the Honours program because I just really enjoyed the stuff that I'm learning</p> <p>- enjoying what I do</p> <p>- <u>in some classes like, I don't know, Math or English ... I kind of find it's not like - I don't really get the chance to apply it too much, like for instance, math you're just doing equations kind of thing, it never really seems to come up in real life,</u> but for the stuff that I learn in Kin, we're doing Anatomy and learning about the muscles and how the body moves and stuff ... when we're doing student training like, the stuff that you learn in the classroom, you can easily apply, which is really nice</p> <p>- it becomes more interesting to me, the more beneficial it is to learn - to be able to use it outside of class, not that the stuff that we learn that you can't apply right away isn't beneficial because you definitely have to get a background information on the stuff, but I really like the stuff that we're able to - you're able to use in some sort of a way</p> <p>- so I do it because I enjoy it</p> <p>- like I want to get a job where I can enjoy doing it, where it's kind of like a 9-5 or even not a 9-5, but something that I'm interested in and things are changing all the time, which is what I see in physiotherapy and I can just apply all of the stuff that I'm interested in rather than having to fall back on something that I wouldn't enjoy as much</p> <p>- the program that I'm in is stuff that I am really interested in</p> <p>- in Kinesiology, I can visualize things a lot more and just how things are happening rather than, <u>some other classes that are just a little vague to me and just don't draw as much of an interest</u></p> <p>- I mean, there's other things I'd rather be doing than studying, but it's enjoyable</p> <p>- For instance, anatomy, it's a lot of memorizing ... but I really enjoy it ... time sort of flies for me when I'm doing it, I don't find it that boring, and I can take it and use it in our training aspects that we do downstairs at Husky athletics which is nice</p> <p>- The courses I pick are more necessarily focused to what I want to be - what I'm interested in, rather than taking - I can now kind of whittle out the classes that I'm not necessarily as interested in, <u>the first couple years - or, for our college anyway everybody kind of takes the same things, so there the interest in some courses I think is a lot less just sometimes</u></p> <p>- there are some courses that are definitely going to be boring and then there are some that I would have taken even if we didn't have to just because I really enjoy them</p> <p>- I really enjoy what I'm doing ... Yup, yea for sure, yea I definitely enjoy it</p> <p>- there's some classes that I definitely enjoy more than others and that I would rather learn about</p>	<p>KEYWORDS for intrinsic motivation present:</p> <ul style="list-style-type: none"> - enjoy what I study - enjoyed what I'm learning - enjoy what I do - interested - time flies when I'm doing it <p>KEYWORDS for intrinsic motivation not present:</p> <ul style="list-style-type: none"> - boring - don't draw much of an interest <p>FOSTERED by:</p> <ul style="list-style-type: none"> - courses with content related to one's desired long term career (e.g. "what I came to school for" or "what I want to be") - courses with content that may be applied to other areas of life (e.g. Kinesiology courses apply to part-time job as trainer) "to be able to use it outside of class" - current intrinsic motivation (enjoyment of courses) leads to long-term desire for intrinsic motivation (obtainment of a job that one enjoys) - variety: "things are changing all the time" - courses that allow one to "visualize things" and understand "how things are happening" as oppose to "vague" courses <p>HINDERED by:</p> <ul style="list-style-type: none"> - courses with content that "never seems to come up in real life" (e.g. English or Math) - first year courses that "everybody kind of takes" as requirements for later courses <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - desire to enrol in mastery program direct result of enjoying courses - intrinsic motivation is context specific as it appears to vary considerably by course and over time (time and courses confounded) <p>CONCLUDED "LEVEL": HIGH</p>

Autonomous Motivation	<ul style="list-style-type: none"> - to once I'm done school to be able to have a good job and be successful - we also get certified as certified personal trainers so we can use that towards jobs before we even graduate so that's good too - you learn how to do things properly and then you get to use it in a practical sense and lots of our classes are starting to become a lot more practical work which is nice because you can go on and use it toward other things rather than just writing multiple choice tests on how much you can memorize stuff - I know for getting into a masters program the averages are really high, so that's another reason that I really work hard - if I put a lot of work into it now, then it's going to be beneficial later down the road. So, hopefully it's just achieving the small goals of getting good marks and doing everything I can and then hopefully get accepted into that masters program ... if that's what I keep deciding I want to do and then hopefully just complete that and do it all one step at a time, so... if you just sit back and don't try your best ... I definitely have some friends that do that ... they're kind of here and they're just trying to get by with the average grades, but for a program like that it doesn't work like that at well, you - like I know lots of the acceptance is based on marks, so, if you don't have the marks to get in, there's not really another way - I kind of do it more for myself more than for anybody else - I more or less do it for myself rather than for other people - I guess it's a little bit of both [pressure to obtain good marks and belief that marks are important] I do see that like since you have to obtain the high marks, I do kind of feel like every exam time is a lot more pressure-full, because you don't want to if you have like for instance, a midterm that's worth a lot and you mess it up there, it can be tough to make up the marks and then you have to make it up somewhere else so I guess there's a bit of pressure in that - I kind of do it for myself as well though ... for me I want to be able to succeed at what I'm doing now rather than - I know I could probably get a job doing something else or like in another college or something, but that's not exactly what I want to do - I find it important, especially in the beginning of the semester to start off as good as you can and then if you can continue that throughout the whole semester, then you're going to end up exceeding your expectations and then if you don't do as well as you intended to near the end, well then at least you have something to fall back on - I think just like working hard just kind of comes with it and it just allows more opportunities, for instance going into the honours program, they only take 8 to 10 kids and it's also marks driven, same with physio, it's whoever's the best is how it is, so I think that's just something that comes along with it for me - I know that it'll be beneficial. Lots of the stuff that I learn I can use in the future when we're going to do student training, I can apply it, like the concepts apply to there ... I like to be able to know as much as I can, especially when you're in situations like that working with the lead athletes or something like that you don't want to be the guy that screwed something up, so it's nice to know as much as you can and be able to use it towards something - I think that definitely some classes when you're learning in them seem more important than others ... it's tough to graduate with a degree in Kinesiology with not having an idea of what you want to do ... you graduate without getting like any other sort of certification with it, like certified exercise physiologist or personal trainer, if you're not planning to go on to a masters program there's not a ton of opportunities, so I think to do the best that I can in the college and allow for many more opportunities to open for me, is what makes it really important ... I know lots of people for our college do it as a gateway into medicine or nursing or pharmacy ... I think that, especially for our college it's a lot more - it's really important, because there's a lot of people coming in with - uh, going for a similar degree and there's not a lot of jobs, so if you don't specifically know what you want to do it can be tough, so I think that's what makes it a lot more important 	<p>KEYWORDS for autonomous motivation present:</p> <ul style="list-style-type: none"> - to be able to have a good job and be successful - use it in a practical sense - learn to do things properly - if I put a lot of work into it now, it's going to be beneficial later - I do it for myself - working hard allows you more opportunities - I know it will be beneficial - important - I really work at it - there's really no other way <p>FOSTERED by:</p> <ul style="list-style-type: none"> - desire for employment both during and after school - desire to attend graduate program (awareness that high marks are required to achieve this) - desire for long term employment in chosen field (unwillingness to settle for job that isn't "exactly what I want to do") - belief that future job market will be competitive - comparing self to others who do not "try their best" and are "trying to get by with average grades" and desiring to do better than this - strong desire for good grades and grade security (earn high grades at beginning of semester so that you can "fall back on" them later if grades worsen) - belief that what one is learning can "be used in the future" and applied <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - autonomous motivation conflated with controlling motivation as he possesses a lot of self-pressure to do well because he feels marks are important - context specific depending on class <p>CONCLUDED "LEVEL": MODERATE</p>
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Controlling Motivation	<ul style="list-style-type: none"> - when you're paying as much as students do for tuition, I don't know, I feel like it's a waste of money and time if you come here and you're not trying to do your best - I know lots of the acceptance is based on marks, so, if you don't have the marks to get in, there's not really another way ... for a masters program where they're taking your last 60 credits ... once you hit the point where they're going to start taking them, it's kind of like a lot of pressure all the time because if you mess it up ... then that semester's going to stick around for like two years, so I mean you can't really get out of it - my parents, I don't think that they would be mad if I say didn't go to school, but I think they know that I want to do well so I think that they - it's just kind of expected of me but I don't really think that I feel pressured to do it, I kind of do it more for myself more than for anybody else. - I've got friends that, they don't need to necessarily get as high of grades or they don't try as hard or they don't find it as important and I don't really feel that that rubs off on me at all ... I've got a pretty decent group of friends that do take school seriously too, so that's kind of nice to be around them. I wouldn't say it pressures me though but, I just, umm we both have similar work environments, so that's kind of nice ... I guess I just don't really feel pressured, I more or less do it for myself rather than for other people, so I do it because I enjoy it and not because anybody's telling me that I have to - I guess it's a little bit of both [pressure to obtain good marks and belief that marks are important] I do see that like since you have to obtain the high marks, I do kind of feel like every exam time is a lot more pressure-full, because you don't want to if you have like for instance, a midterm that's worth a lot and you mess it up there, it can be tough to make up the marks and then you have to make it up somewhere else so I guess there's a bit of pressure in that - I just feel comfortable here, I don't feel like I'm pressured into doing anything, I feel that there's lots of things that you can pick from that you want to do and if you want to do them, you take the classes for that, but I don't feel pressured to do anything or anything like that - I feel like there is a lot more pressure during the school year as oppose to finals - when you're paying that much money to go to school 	<p>KEYWORDS for controlling motivation present:</p> <ul style="list-style-type: none"> - a waste of money and time - a lot of pressure all the time [to obtain good marks] - it's expected of me [to do well] - exams are a lot more pressure-full <p>KEYWORDS for controlling motivation not present:</p> <ul style="list-style-type: none"> - I don't think my parents would be mad if I didn't go to school - I don't think I feel pressured to do it - my friends don't rub off on me at all - I wouldn't say my friends pressure me - I just don't really feel pressured - I do it because I enjoy it and not because anybody's telling me that I have to <p>FOSTERED by:</p> <ul style="list-style-type: none"> - acknowledgement of financial and time burden - strong desire to attend graduate program for which admittance is dependent on high marks (strong desire to obtain good grades) <p>HINDERED by:</p> <ul style="list-style-type: none"> - having a "good group of friends" with a similar work ethic who do not make one feel pressured - adopting parent's beliefs that university is important to "doing well" in the future - belief that one has a lot of options to "pick from" <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - most controlling motivation (pressure, expectations) appear to come from himself rather than others <p>CONCLUDED "LEVEL": MODERATE</p>
Mastery-Approach Goals	<ul style="list-style-type: none"> - besides just learning stuff - for me it becomes more interesting to me, the more beneficial it is to learn - to be able to use it outside of class, not that the stuff that we learn that you can't apply right away isn't beneficial because you definitely have to get a background information on the stuff, but I really like the stuff that we're able to - you're able to use in some sort of a way - trying to do your best at it. - I'm a pretty competitive person so, I want to be able to do the best that I can do at this stuff - to do the best work that I can I guess, and not... yea, just to meet my own expectations - trying to do the best that I can - I like to be able to know as much as I can - I feel that I understand like a lot of the material that is presented to me - I just want to do the best that I can rather than.. than not - makes it easier for me to learn because I feel like the stuff I've understood well in the past, it's good that it can just transfer over as well 	<p>KEYWORDS for setting mastery goals:</p> <ul style="list-style-type: none"> - learning - beneficial to learn - to do your best - do the best that I can do - do the best work that I can - meet my own expectations - be able to know as much as i can - understand the material <p>FOSTERED by:</p> <ul style="list-style-type: none"> - belief that one will use the information "outside of class" immediately - belief that knowing the information will be beneficial in the long-term - belief that understanding the information will aid in understanding future information <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - speaks in hypothetical "you" - focused on demonstration of competence (do) but does not compare himself to others <p>CONCLUDED "LEVEL": MODERATE</p>

<p>Performance-Approach Goals</p>	<ul style="list-style-type: none"> - I don't really like failure, so when I'm at school I'm here to get good marks - to be able to use it outside of class - trying to do your best at it - I'm a pretty competitive person so, I want to be able to do the best that I can do - hopefully it's just achieving the small goals of getting good marks and doing everything I can and then hopefully get accepted into that masters program - I want to do well - for every test and stuff like that, I try to ... do as best as I can there rather than fall behind in courses where you're trying to make marks up later - to do the best work that I can - some classes are going to be harder than others, so I don't know, based on what you know about the classes, I would expect for myself to get better marks in certain ones than others - when I say that [I strive to do better than other students] I'm just more or less, trying to do the best that I can, and I think that's just something that comes with it. I kind of like, lots of the people in our college are pretty close - we know each other and so ... I kind of like to establish myself as somebody who's more or less smart in the college, I also, like I've just always been a competitive person, so I definitely know that if I'm achieving good marks, I should be more or less top of the class and if I'm not getting as good as marks as everybody else then I'm not doing what I need to, so I think that's kind of more - or, what I'm leaning towards when I say that... not necessarily people that I'm smarter than, but I think just like working hard just kind of comes with it and it just allows more opportunities, for instance going into the honours program, they only take 8 to 10 kids and it's also marks driven - I know that there's - not necessarily people that I'm smarter than, but I feel if I know more about the overall topic, I kind of want to display it through my marks ... there's a reason that I'm better than them and that's because I get better marks - I wouldn't say that I necessarily am just trying to be better than everybody else or anything, I think it just comes along ... with wanting to get good grades - I feel like I do the best that I can already, so I don't really know how much better I can necessarily do - I've kind of noticed from first year that I've progressively gotten better and gotten better marks and I think that makes me like higher my expectations of myself a little bit and realize that I can do more things, the better I do - I definitely want to be ... just being at the top of the class, or near the top of the class is just something that comes along with it for me. But, I definitely do take pride I would say, in not necessarily being better than others, but just getting - doing good and getting good marks and it ends up being better than other people and everybody else kind of like knows .. after three years once you know everybody, they're kind of like "oh, these guys, they get pretty good marks", but I wouldn't say like that that's why I go to school or anything, I would just say that it's something that comes along with it for me 	<p>KEYWORDS for setting performance goals:</p> <ul style="list-style-type: none"> - I'm here to get good marks - to be able to use it outside of class - trying to do your best - do the best that I can do - small goals of getting good marks - I want to do well - if I'm achieving good marks, I should be more or less top of the class - I kind of want to display [knowledge of topic] through my marks - there's a reason that I'm better than them and that's because I get better marks - wanting to get good grades - I want to be at the top of the class, <p>KEYWORDS for not setting performance goals:</p> <p>FOSTERED by:</p> <ul style="list-style-type: none"> - being "a pretty competitive person" - desire to attend honours program and graduate school - desire to be broadly perceived as someone who is "smart in the college", better than others, and obtain good marks: "everybody else kind of like knows" - belief that if one "works hard", one should be "at the top of the class": "not necessarily that I need to be better than everybody else, but I think just like working hard just kind of comes with it" - desire to display knowledge of topic through marks - previous attainment of performance goals causes him to set higher performance goals <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - speaks in hypothetical "you" - degree of performance goal is context specific depending on class ("expect for myself to get better marks in certain [courses] than others") but appears to set performance goals in all courses - hesitant to admit desire to do better than other students as he recognizes this is against social norm - sees getting good grades and being better than others as inherently the same (if you get good grades, you will be better than others) <p>CONCLUDED "LEVEL": HIGH</p>
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Autonomy Satisfaction	<ul style="list-style-type: none"> - <u>there's not really a lot of chance for leeway, you just kind of got to get it done in the time being</u> - I feel really comfortable around this university - I know where everything is and stuff like that, I lived on campus for a year here ...I feel like the university gives you a lot of choices on what classes to take and there's a lot of different options ... I just feel comfortable here, I don't feel like I'm pressured into doing anything, I feel that there's lots of things that you can pick from that you want to do and if you want to do them, you take the classes for that, but I don't feel pressured to do anything or anything like that - if I have like volunteer stuff or other stuff going on, I didn't get home till late at night, so my studying would all be shoved into like a small time frame oppose to where it's just ended now and then I have just so much free time and I can do it in the afternoon or just even carry it on throughout the evenings - I just don't feel - I don't feel as much pressure as I did when I had a lot more things going on besides school, so... the more free time I have, I guess, the less pressure I feel. - having the freedom to - once you get past the first or second years to have a bit more of an elective...the elective courses. The courses I pick are more necessarily focused to what I want to be - now that you're starting to get into the later years there are a lot more elective choices, um, so you can just - for me, the enjoyment has kind of gone up I guess since the more freedom we've had to be able to do - to pick our courses - Yea, just a little more choices and stuff, and you get to relate things to what you want to do 	<p>KEYWORDS for high autonomy satisfaction:</p> <ul style="list-style-type: none"> - I feel really comfortable around this university - the university gives you a lot of choices - a lot of different options - I don't feel like I'm pressured - lots to pick from - more freedom - elective courses - courses I pick - more choices <p>KEYWORDS for low autonomy satisfaction:</p> <ul style="list-style-type: none"> - not a lot of chance for leeway <p>FOSTERED by:</p> <ul style="list-style-type: none"> - having lived on campus for a year - having a variety of courses to choose from (being at the stage in university when one is given more electives) - perceiving that one has "a lot of different options" - having "free time" <p>HINDERED by:</p> <ul style="list-style-type: none"> - time constraints - extracurricular activities (volunteering) that create time constraints <p>CONCLUDED "LEVEL": HIGH</p>
Competence Satisfaction	<ul style="list-style-type: none"> - some classes are going to be harder than others - the lowest mark to get in last year I think was an 80 or an 81 so usually I want to keep it as high above that as I can, not that that's always the easiest thing to do - I also have a pretty good background with it just growing up and stuff, so like memorizing stuff about I guess like, everything I do is about the human body and stuff, it just comes like naturally to me, so like some courses that people seem to struggle in ... it can be tough at times for sure, but I just feel that it comes to me a lot easier ... it's just lots of the stuff comes to me pretty easy - I kind of like to establish myself as somebody who's more or less smart in the college - classes where it doesn't come as easy to me - I feel like I do the best that I can already, so I don't really know how much better I can necessarily do - I feel that I understand like a lot of the material that is presented to me - I just feel like I understand things pretty good and I just feel, I feel really confident 	<p>KEYWORDS for high competence satisfaction:</p> <ul style="list-style-type: none"> - it just comes like naturally to me - it comes to me a lot easier - I like to establish myself as somebody who is smart - I do the best that I can already - I understand like a lot of the material - I feel really confident <p>KEYWORDS for low competence satisfaction:</p> <ul style="list-style-type: none"> - not that [my goal marks are] always the easiest thing to do - it can be tough at times - classes where it doesn't come as easy to me <p>FOSTERED by:</p> <ul style="list-style-type: none"> - having a "good background" with the course content - feeling as though the content comes easily to him compared to others in the class <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - context specific "some classes are harder than others" <p>CONCLUDED "LEVEL": MODERATE</p>

Academic Dedication	<ul style="list-style-type: none"> - I'm trying to get into a Masters program - then hopefully get accepted into that masters program or whatever I want to do, <u>if that's what I keep deciding I want to do and then hopefully just complete that and do it all one step at a time</u> - I've applied for the Honours program - [dropping out] has never crossed my mind, ever, I don't really ... I came here to start a degree, and especially after three years when I've got one year left, there's just no way that I'm going to not go back - I've never thought of not going to school 	<p>KEYWORDS for high dedication:</p> <ul style="list-style-type: none"> - trying to get into a Masters program - I've applied for the Honours program - [dropping out] has never crossed my mind, ever - there's just no way that I'm going to not go back - I've never thought of not going to school <p>KEYWORDS for low dedication:</p> <ul style="list-style-type: none"> - if that's what I keep deciding I want to do - one step at a time <p>FOSTERED by:</p> <ul style="list-style-type: none"> - feeling that one has already invested considerable time into their degree ("especially after three years when I've got one year left") <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - context specific; dedication to complete degree in general appears very high but less long-term dedication/commitment toward Master's program: "if that's what I want to do" <p>CONCLUDED "LEVEL": HIGH</p>
Academic Achievement	<ul style="list-style-type: none"> - classes that are just a little vague to me and just don't draw as much of an interest, like I definitely see my marks not as high in those - for the masters program that I'm applying to, the lowest mark to get in last year I think was an 80 or an 81 so usually I want to keep it as high above that as I can, not that that's always the easiest thing to do - I can memorize the stuff ... I think my marks definitely reflect that a lot - my grades definitely, definitely reflect on how competent I am - my marks definitely reflect just on how much I understand stuff - if I'm achieving good marks, I should be more or less top of the class and if I'm not getting as good as marks as everybody else then I'm not doing what I need to - there's a reason that I'm better than them and that's because I get better marks - I've kind of noticed from first year that I've progressively gotten better and gotten better marks - getting good marks - after three years once you know everybody, they're kind of like "oh, these guys, they get pretty good marks" 	<p>KEYWORDS for high achievement:</p> <ul style="list-style-type: none"> - 80 or 81 (sufficient marks for Master's program) - "if I'm achieving good marks, I should be ... top of the class" - "I get better marks" - "I've progressively gotten better and gotten better marks" - "getting good marks" - everybody, they're kind of like "oh, these guys, they get pretty good marks" everybody, they're kind of like "oh, these guys, they get pretty good marks" - high "grades" <p>KEYWORDS for low achievement:</p> <ul style="list-style-type: none"> - marks not as high - "if I'm not getting as good as marks as everybody else" <p>FOSTERED by:</p> <ul style="list-style-type: none"> - desire to attend Master's program - being able to "memorize the stuff" - being competent - understanding the information - desire for others to see him as one who gets good marks <p>HINDERED by:</p> <ul style="list-style-type: none"> - courses that are "vague" and uninteresting <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - speaks in very hypothetical terms making it difficult to ascertain his actual level of obtained achievement <p>CONCLUDED "LEVEL": MODERATE</p>
Well-being	<ul style="list-style-type: none"> - I've got a pretty decent group of friends that do take school seriously too, so that's kind of nice to be around them. I wouldn't say it pressures me though ... we both have similar work environments, so that's kind of nice as well - <u>it kind of does bug me when I know that there's - not necessarily people that I'm smarter than, but I feel if I know more about the overall topic, I kind of want to display it through my marks</u> - midterms like sometimes are more stressful than finals - I've never thought of not going to school, so I can't say that I'm not happy that I didn't make it this far - I wouldn't say that I'm not satisfied, I would definitely say that I'm satisfied with what's gone on so far 	<p>KEYWORDS for high wellbeing:</p> <ul style="list-style-type: none"> - nice to be around them ... that's nice as well - can't say that I'm not happy - I'm satisfied with what's gone on so far <p>KEYWORDS for low wellbeing:</p> <ul style="list-style-type: none"> - does bug me - stressful <p>FOSTERED by:</p> <ul style="list-style-type: none"> - possessing a "decent group of friends" who "take school seriously too" and have "similar work environments" - perceiving that one has "made it this far" (i.e. completed 3 years of university) <p>HINDERED by:</p> <ul style="list-style-type: none"> - feeling that one's marks do not reflect one's knowledge of the topic compared to other students - stress of midterms <p>CONCLUDED "LEVEL": MODERATE</p>

Relationships Between Constructs as Experienced by Interviewee I3		
NO DATA for the following relationships: Controlling Motivation / Academic Dedication Autonomy Satisfaction/ Academic Dedication Competence Satisfaction / Academic Dedication Autonomy Satisfaction / Academic Achievement Autonomy Satisfaction / Competence Satisfaction Mastery-Approach Goals / Academic Dedication Mastery-Approach Goals / Well-being Mastery-Approach Goals / Autonomy Satisfaction		
Relationships Between Outcome Variables and Motivation Types		
Intrinsic Motivation / Academic Dedication	<ul style="list-style-type: none"> - the stuff I'm studying [in my current upper year courses] is touched on a lot more, the stuff that I'm interested in and I guess through like enjoying all of the work and stuff too, I've applied for the Honours program because I just really enjoyed the stuff that I'm learning. - I wouldn't be in the schooling that I am if I didn't enjoy it - [dropping out has] never crossed my mind, ever ... I came here to start a degree, and especially after three years when I've got one year left, there's just no way that I'm going to not go back ... I really enjoy what I'm doing, so I don't really - I've never really even thought about a different career or anything like that so unless something drastic happened or something, I don't really see [dropping out] happening ever. - yea I definitely enjoy it - I think if I got through the first ... few years and I really hated it, I think I would be doing something else ... there's some classes that I definitely enjoy more than others and that I would rather learn about and that's why I'm trying to go into a masters program where I focus more on certain courses, but I definitely would say that I enjoy it and that's why I stay 	UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Dedication (positive relationship) <ul style="list-style-type: none"> - high intrinsic motivation is related to increased dedication toward one's program: "I've applied for the Honours program because I just really enjoyed the stuff that I'm learning"; "I really enjoy what I'm doing, so ... I've never really even thought about a different career ... I don't really see [dropping out] happening ever."; "I enjoy it and that's why I stay" - believes that low intrinsic motivation would be related to low dedication: "I wouldn't be in the schooling that I am if I didn't enjoy it"; "I think if I got through the first ... few years and I really hated it, I think I would be doing something else"
Autonomou s Motivation / Academic Dedication	<ul style="list-style-type: none"> - I wouldn't be in the schooling that I am ... if I didn't think that it was important I guess, if I didn't think it was important I probably wouldn't be here - definitely some classes when you're learning in them seem more important than others, but I would say overall, like it's very important to me and I think that I would definitely relate back to my dedication for it 	UNIDIRECTIONAL RELATIONSHIP Autonomous Motivation --> Dedication (positive relationship) <ul style="list-style-type: none"> - autonomous motivation (belief that schooling is important) is related to increased dedication - believes that decreased autonomous motivation would result in decreased dedication to complete degree: "if I didn't think it was important I probably wouldn't be here"
Intrinsic Motivation / Academic Achieveme nt	<ul style="list-style-type: none"> - some other classes that are just a little vague to me and just don't draw as much of an interest, like I definitely see my marks not as high in those - I can memorize the stuff ... especially if I have an interest in them, I think my marks definitely reflect that a lot - in a course that I really am interested in ... I would probably put a lot more time into that course, just because I feel like I could get a higher mark, just because I understand the stuff ... and I find it enjoyable to study. For instance, anatomy, it's a lot of memorizing ... but I really enjoy it ... time sort of flies for me when I'm doing it, I don't find it that boring, and I can take it and use it in our training aspects that we do downstairs at Husky athletics which is nice... oppose to the courses that I - ... for instance this semester I'm signed up for a course ... it's kind of dry though, and I don't think I would set the goal for myself ... to get as good of a mark in that one ... I want to do the best that I can ... I want to do good in the course but I don't think I would have my goal as high 	UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Achievement (positive relationship, conditional) <ul style="list-style-type: none"> - low intrinsic motivation (less interest, kind of dry) is related to lower achievement (marks are not as high) - high intrinsic motivation (interest, enjoyment, time flies) is related to higher achievement (my marks reflect that, get a higher mark) MEDIATED by Autonomous motivation (in a course I'm interested in, I would put a lot more time in), Performance Goals (I feel like I could get a higher mark vs. I wouldn't have my goal as high), Mastery goals (I could get a higher mark because I understand the stuff) :

Autonomous Motivation / Academic Achievement	<ul style="list-style-type: none"> - it's a little bit of both [the pressure I experience to obtain high marks and my believe that marks are important that motivates me to obtain high marks] I do see that ... since you have to obtain the high marks, I do kind of feel like every exam time is a lot more pressure-full, because ... if you have like for instance, a midterm that's worth a lot and you mess it up there, it can be tough to make up the marks and then you have to make it up somewhere else - for the masters program that I'm applying to, the lowest mark to get in last year I think was an 80 or an 81 so usually I want to keep it as high above that as I can, not that that's always the easiest thing to do, but I want to at least try - It probably would be a little bit different if what I was trying to do didn't demand such high marks ... when I talk to my academic advisors ... they say that the program I'm trying to go into... it's like strictly mark driven so ... I like to do volunteering a lot too and I... still do a lot of that, but I find the marks part a bit more important right now just because of what's being asked - I think just like working hard just kind of comes with it and it just allows more opportunities, for instance going into the honours program, they only take 8 to 10 kids and it's also marks driven - I can memorize the stuff ... I think my marks definitely reflect that a lot - in a course that I really am interested in ... I would probably put a lot more time into that course, just because I feel like I could get a higher mark, just because I understand the stuff ... and I find it enjoyable to study. - it makes me want to work harder and get better grades. 	<p>RECIPROCAL RELATIONSHIP</p> <p>Autonomous Motivation --> Achievement (positive relationship)</p> <ul style="list-style-type: none"> - autonomous motivation to attend masters program is related to desire to obtain specific grade point average - believes that autonomous motivation (putting time into course, memorizing content) is related to higher achievement: "I think my marks definitely reflect that a lot" <p>Achievement -> Autonomous Motivation (positive relationship)</p> <ul style="list-style-type: none"> - belief that one can obtain high achievement in a course (higher mark) is related to increased autonomous motivation within that course: "I would probably put a lot more time into that course, just because I feel like I could get a higher mark" <p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - experiences autonomous motivation to obtain high grades
Controlling Motivation / Academic Achievement	<ul style="list-style-type: none"> - the acceptance is based on marks, so, if you don't have the marks to get in, there's not really another way ... for a masters program where they're taking your last 60 credits... once you hit the point where they're going to start taking them, it's... a lot of pressure all the time because if you mess it up ... then that semester's going to stick around for like two years, so I mean you can't really get out of it - it's a little bit of both [the pressure I experience to obtain high marks and my believe that marks are important that motivates me to obtain high marks] ... since you have to obtain the high marks, I do kind of feel like every exam time is a lot more pressure-full, because you don't want to if you have like for instance, a midterm that's worth a lot and you mess it up there, it can be tough to make up the marks and then you have to make it up somewhere else so I guess there's a bit of pressure in that - if I had some huge scholarship and I had to maintain a 90 average ... even just like pressure from my parents ... maybe if the college set a higher average that I had to obtain or something like that, I might try a little harder, but I don't really feel like there's any external pressures that makes me do it 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Achievement -> Controlling Motivation (positive relationship)</p> <ul style="list-style-type: none"> - needing specific grades (e.g. to be accepted into a masters program, to meet life goals, or to retain a scholarship) is related to increased controlling motivation: "a lot of pressure all the time" <p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - experiences controlling motivation to obtain high grades
Intrinsic Motivation / Well-being	I think if I was at school and I didn't enjoy what I was doing ... yea, wanting to be here definitely plays into the satisfaction that I've got	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Intrinsic Motivation --> Wellbeing (positive relationship)</p> <ul style="list-style-type: none"> - intrinsic motivation (enjoying what one is doing) is related to increased well being (satisfaction)
Autonomous Mot. / Well-being	- I think if I was at school and I ... didn't work as hard as I can - I've always kind of, in - whether it's school or anything else, I always just want to put the best work in that you can, because it definitely reflects on yourself towards other people, so I think that, yea, wanting to be here definitely plays into the satisfaction that I've got	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Autonomous Motivation --> Wellbeing (positive relationship)</p> <ul style="list-style-type: none"> - autonomous motivation (wanting to be here) is related to increased well being (satisfaction)
Controlling Motivation / Well-being	<ul style="list-style-type: none"> - I've got a pretty decent group of friends that do take school seriously too, so that's kind of nice to be around them. I wouldn't say it pressures me though ... we both have similar work environments, so that's kind of nice - I feel like there is a lot more pressure during the school year as oppose to finals, I know me and my friends always talk about this, that we always find that midterms like sometimes are more stressful than finals 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Controlling Motivation --> Wellbeing (negative relationship)</p> <ul style="list-style-type: none"> - lack of controlling motivation from peers ("decent group of friends ... wouldn't say it pressures me") is related to increased well-being ("so that's kind of nice") - controlling motivation ("pressure") is related to decreased well-being ("more stressful")

Relationships Between Outcome Variables and Needs Satisfaction		
Competence Satisfaction / Academic Achievement	<ul style="list-style-type: none"> - in classes where it doesn't come as easy to me, the marks aren't there and I ... have to try a lot harder but I think that my marks definitely reflect just on how much I understand stuff - I feel like I could get a higher mark, just because I understand the stuff and ... I find it enjoyable to study. - past achievement [makes me feel competent] - my grades definitely, definitely reflect on how competent I am - the better I do, the more confident I feel ... the more I'm succeeding in the semesters and in classes at specific periods of time, the more I think that I can do and the better job I think I can do - I think it does go both ways for that one [competence affects grades and my grades affect my competence] I would say that - like based on how competent I am, I think that it makes me want to work harder and get better grades. So, yea, I would definitely say that it goes both ways there 	<p>RECIPROCAL RELATIONSHIP</p> <ul style="list-style-type: none"> - I think it does go both ways <p>Competence Satisfaction --> Achievement (positive relationship)</p> <ul style="list-style-type: none"> - low competence satisfaction is related to low achievement and high competence satisfaction is related to high achievement: "in classes where it doesn't come as easy to me, the marks aren't there ... my marks definitely reflect just on how much I understand stuff"; "my grades definitely, definitely reflect on how competent I am" <p>MEDIATED by autonomous motivation: "based on how competent I am, I think that it makes me want to work harder and get better grades"</p> <p>Achievement -> Competence Satisfaction (positive relationship)</p> <ul style="list-style-type: none"> - high achievement is related to increased competence satisfaction: "the better I do, the more confident I feel" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - defines competence satisfaction as whether or not he can obtain a high mark: "I feel like I could get a higher mark" <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - competence and achievement both increased by intrinsic motivation and obtainment of mastery goals
Autonomy Satisfaction / Well-being	<ul style="list-style-type: none"> - midterms ... sometimes are more stressful than finals, just because of the schedule - like the way your day is put together, how you have to do everything at night time as oppose to finals where you get full days all the time ... I guess it's just basically how busy I get throughout the semester... if I have like volunteer stuff or other stuff going on, I didn't get home till late at night, so my studying would all be shoved into like a small time frame oppose to where it's just ended now and then I have just so much free time and I can do it in the afternoon or just even carry it on throughout the evenings ... I don't feel as much pressure as I did when I had a lot more things going on besides school, so... the more free time I have, I guess, the less pressure I feel 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Autonomy Satisfaction --> Wellbeing (positive relationship)</p> <ul style="list-style-type: none"> - autonomy satisfaction (having more time to choose when to engage in academic activities vs. a strict, busy schedule) is related to increased well-being (less stressful, less pressure)
Competence Sat./ Well-being	<ul style="list-style-type: none"> - I can't really say that there's anything that I think that I've miserably failed at or anything like that, that's been too drastic for me or anything like that so 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Competence Sat. -> Wellbeing (positive relationship)</p> <ul style="list-style-type: none"> - "miserably failed" implies that not having one's competence satisfied (failing) would result in low well-being (feeling miserable)
Relationships Between Motivation Types and Needs Satisfaction		

<p>Intrinsic Motivation / Autonomou s Motivation</p>	<ul style="list-style-type: none"> - I more or less do it for myself rather than for other people, so I do it because I enjoy it - I kind of do it for myself as well though because ... I want to be able to succeed at what I'm doing now ... I could probably get a job doing something else or like in another college or something, but that's not exactly what I want to do, like I want to get a job where I can enjoy doing it, where it's ... something that I'm interested in and things are changing all the time, which is what I see in physiotherapy and I can just apply all of the stuff that I'm interested in rather than having to fall back on something that I wouldn't enjoy as much, so I feel that the stuff I'm doing is more or less for myself - the more enjoying it is for me, it makes me want to work harder - there's other things I'd rather be doing than studying, but it's enjoyable and I know that it'll be beneficial. Lots of the stuff that I learn I can use in the future when we're going to do student training, I can apply it, like the concepts apply ... I like to be able to know as much as I can, especially when you're in situations like that working with the lead athletes or something like that you don't want to be the guy that screwed something up, so it's nice to know as much as you can and be able to use it towards something - [if] I really am interested in [a course]... I would probably put a lot more time into that course, just because I feel like I could get a higher mark, just because I understand the stuff ... and I find it enjoyable to study. For instance, anatomy, it's a lot of memorizing ... but I really enjoy it ... time sort of flies for me when I'm doing it, I don't find it that boring, and I can take it and use it in our training aspects that we do downstairs at Husky athletics which is nice - I wouldn't be in the schooling that I am if I didn't enjoy it, but I also wouldn't be taking it if I didn't think that it was important ... if I didn't think it was important I probably wouldn't be here 	<p>RECIPROCAL RELATIONSHIP Intrinsic Motivation --> Autonomous Motivation (positive relationship, conditional) - desire for future intrinsic motivation (obtaining job one enjoys) is related to increase autonomous motivation to engage in courses to be accepted into chosen program - high intrinsic motivation (enjoyment and interest in content) is related to increased autonomous motivation (I do it for myself): "the more enjoying it is for me, it makes me want to work harder" MEDIATED by desire to obtain performance and mastery goals: "[if] I really am interested in [a course] ... I would probably put a lot more time into that course, just because I feel like I could get a higher mark, just because I understand the stuff ... and I find it enjoyable to study" Autonomous Motivation -> Intrinsic Motivation (positive relationship) - autonomous motivation (belief that course is important to future career and beneficial to athletes) is related to increased intrinsic motivation (interest and enjoyment in content)</p> <p>CONTEXTUAL RELATIONSHIP - experiences both autonomous and intrinsic motivation: "it's enjoyable and I know that it'll be beneficial"; "I wouldn't be in the schooling that I am if I didn't enjoy it, but I also wouldn't be taking it if I didn't think that it was important"</p>
<p>Intrinsic Mot. / Contr. Mot</p>	<ul style="list-style-type: none"> - I do it because I enjoy it and not because anybody's telling me that I have to 	<p>CONTEXTUAL RELATIONSHIP - experiences high intrinsic motivation and low controlling mot. but no evidence that variables influence each other</p>
<p>Autonomou s Motivation / Controlling Motivation</p>	<ul style="list-style-type: none"> - my parents, I don't think that they would be mad if I say didn't go to school, but I think they know that I want to do well so I think ... it's just kind of expected of me but I don't really think that I feel pressured to do it, I kind of do it more for myself more than for anybody else. I've got friends that ... don't need to necessarily get as high of grades or they don't try as hard or they don't find it as important and I don't really feel that that rubs off on me...I've got a pretty decent group of friends that do take school seriously too, so that's kind of nice to be around them. I wouldn't say it pressures me though ... I just don't really feel pressured, I more or less do it for myself rather than for other people - maybe if the college set a higher average that I had to obtain or something like that, I might try a little harder, but I don't really feel like there's any external pressures that makes me do it, I think I just do it for myself more or less - you get to [take courses] you want to do and ... what you think is going to be beneficial ... rather than being forced to take it. - when you're paying that much money to go to school, I think that definitely some classes when you're learning in them seem more important than others, but I would say overall, like it's very important to me 	<p>UNIDIRECTIONAL RELATIONSHIP Autonomous Motivation --> Controlling Motivation (negative relationship) - high autonomous motivation is related to decreased controlling motivation despite increased expectations from others' that one will do well as this is NOT perceived as controlling motivation: "I think they know that I want to do well so ... it's just kind of expected of me but I don't really think that I feel pressured to do it, I kind of do it more for myself more than for anybody else"</p> <p>CONCEPTUAL SIMILARITY - not experiencing controlling motivation (pressure from others) is conceptually similar to autonomous motivation (doing it for one's self); the two are directly juxtapose with each other: "I don't really think that I feel pressured to do it, I kind of do it more for myself"; "I don't really feel like there's any external pressures that makes me do it, I think I just do it for myself"; "I just don't really feel pressured, I more or less do it for myself"; "you get to [take courses] you want to do and ... what you think is going to be beneficial ... rather than being forced to take it"</p> <p>CONTEXTUAL RELATIONSHIP - experiences low controlling motivation (pressure from others) but does experience guilt from cost of tuition (moderate controlling motivation) and high autonomous motivation</p>

Intrinsic Motivation / Autonomy Satisfaction	<ul style="list-style-type: none"> - having the freedom ... to have a bit more ... elective courses. The courses I pick are more necessarily focused to what I want to be - what I'm interested in ... I can now kind of whittle out the classes that I'm not necessarily as interested in, the first couple years ... everybody kind of takes the same things, so there the interest in some courses I think is a lot less ... because ... there are some courses that are definitely going to be boring and then there are some that I would have taken even if we didn't have to just because I really enjoy them and I think that now that you're starting to get into the later years there are a lot more elective choices ... the enjoyment has kind of gone up I guess since the more freedom we've had to be able ... to pick our courses ... the more freedom I have around the university, the more enjoyment I have in the courses 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Autonomy Satisfaction -> Intrinsic Motivation (positive relationship)</p> <ul style="list-style-type: none"> - increased autonomy satisfaction (freedom to choose courses, electives) is related to increased intrinsic motivation as one is able to choose courses they enjoy and are interested in: "the more freedom I have around the university, the more enjoyment I have in the courses"
Intrinsic Motivation / Competence Satisfaction	<ul style="list-style-type: none"> - the program that I'm in is stuff that I am really interested in ... I also have a pretty good background with it just growing up ... everything I do is about the human body... it just comes like naturally to me, so like some courses that people seem to struggle in ... because it can be tough at times for sure, but I just feel that it comes to me a lot easier ... just lots of the stuff comes to me pretty easy - if I'm in classes that I'm not highly interested in ... I just find it a lot harder to understand the material if I'm not interested in it - the easier it is to understand it, the more enjoying it is for me - a course that I really am interested in ... I would probably put a lot more time into that course, just because I feel like I could get a higher mark, just because ... I find it enjoyable to study. For instance, anatomy, it's a lot of memorizing, ... but I really enjoy it, and I don't really - like time sort of flies for me when I'm doing it, I don't find it that boring - Yea, yea, more or less and just past achievement [makes me feel competent] and being interested in it - the stuff that I find interesting, like, in our college, it gives me confidence to know that I can do good at it, just because I've got that decent background information on a lot of stuff now I believe that it makes me feel confident going into other classes and into other projects and other real world situations, so I'd say the more I enjoy classes and the more I go to them and the more I succeed at them, the more confident I feel going forward towards other things - I think if I am confident ... I will enjoy it, but it depends what it is - just because I have confidence that I can do well in the course doesn't ... necessarily means I'm going to enjoy it 	<p>RECIPROCAL RELATIONSHIP</p> <p>Intrinsic Motivation --> Competence Satisfaction (positive relationship)</p> <ul style="list-style-type: none"> - low intrinsic motivation is related to low competence satisfaction : "I just find it a lot harder to understand the material if I'm not interested in it" - high intrinsic motivation is related to increased competence satisfaction <p>MEDIATED by autonomous motivation and performance approach goals: "a course that I really am interested in ... I would probably put a lot more time into that course, just because I feel like I could get a higher mark just because ... I find it enjoyable to study"; "the more I enjoy classes and the more I go to them and the more I succeed at them, the more confident I feel going forward"</p> <p>Competence Satisfaction -> Intrinsic Motivation (positive relationship, conditional)</p> <ul style="list-style-type: none"> - increased competence satisfaction is related to increased intrinsic motivation: "the easier it is to understand it, the more enjoying it is for me" BUT not always: "if I am confident ... I will enjoy it, but it depends what it is - just because I have confidence that I can do well in the course doesn't ... necessarily means I'm going to enjoy it" <p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - experiences high intrinsic motivation and high competence satisfaction
Autonomous Mot. / Autonomy Sat.	<ul style="list-style-type: none"> - Yea, just a little more choices ... and you get to relate things to what you want to do and to what you think is going to be beneficial and what you've heard about the classes rather than being forced to take it 	<p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - if one has high autonomy satisfaction (more choices, not being forced to take certain courses), they will choose the courses for which they are autonomously motivated (what you want to do, what you think is going to be beneficial); no clear distinction between variables

Autonomous Motivation / Competence Satisfaction	<ul style="list-style-type: none"> - I know that for the masters program that I'm applying to, the lowest mark to get in last year I think was an 80 or an 81 so usually I want to keep it as high above that as I can, not that that's always the easiest thing to do, but I want to at least try - the easier, for me, the easier it is to understand it, the more enjoying it is for me, it makes me want to work harder because at least I'm not working hard and I'm not having a good time doing it so - I would probably put a lot more time into that course, just because I feel like I could get a higher mark, just because I understand the stuff - if I didn't succeed in something ... I don't think it necessarily lowers my competence, I would say that it just makes me realize that I need to do better than what I'm doing, I wouldn't say that it necessarily makes me think that I can't do it ... it just makes me realize that I need to do better - based on how competent I am, I think that it makes me want to work harder 	<p>UNIDIRECTIONAL RELATIONSHIP:</p> <p>Competence Satisfaction -> Autonomous Motivation (positive relationship, facilitating)</p> <ul style="list-style-type: none"> - belief that one's competence will be satisfied is related to increased autonomous motivation: "I would probably put a lot more time into that course, just because I feel like I could get a higher mark" - high competence satisfaction is related to increased autonomous motivation: "based on how competent I am, I think that it makes me want to work harder" <p>MEDIATED by intrinsic motivation and mastery goal attainment: "the easier, for me, the easier it is to understand it, the more enjoying it is for me, it makes me want to work harder"</p> <ul style="list-style-type: none"> - low competence satisfaction (belief that obtaining high enough marks to be admitted to a Master's program is "not the easiest thing to do"; not succeeding and having lower confidence) does not hinder autonomous motivation toward master's program or toward course
Controlling Motivation / Autonomy Satisfaction	<ul style="list-style-type: none"> - I just feel comfortable here, I don't feel like I'm pressured into doing anything, I feel that there's lots of things that you can pick from that you want to do and if you want to do them, you take the classes for that, but I don't feel pressured to do anything or anything like that - I don't feel as much pressure as I did when I had a lot more things going on besides school, so... the more free time I have, I guess, the less pressure I feel. - since I don't feel forced by anybody, I feel like my goal to do well in school is basically my own more or less and it's not pressured on by anybody else, it's just, I'm doing it for what I want to do - Yea, just a little more choices and stuff, and you get to relate things to what you want to do and to what you think is going to be beneficial and what you've heard about the classes rather than being forced to take it 	<p>RECIPROCAL RELATIONSHIP</p> <p>Controlling Motivation --> Autonomy Satisfaction (negative relationship)</p> <ul style="list-style-type: none"> - lack of controlling motivation is related to increased feelings of autonomy satisfaction: "since I don't feel forced by anybody, I feel like my goal to do well in school is basically my own ... it's not pressured on by anybody ... I'm doing it for what I want to do" <p>Autonomy Satisfaction -> Controlling Motivation (negative relationship)</p> <ul style="list-style-type: none"> - autonomy satisfaction (freedom to decide how to spend one's time) is related to decreased controlling motivation: "the more free time I have ... the less pressure I feel" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - lack of controlling motivation is conceptually similar to presence of autonomy satisfaction: "I just feel comfortable here, I don't feel like I'm pressured into doing anything ... if you want to do them, you take the classes for that, but I don't feel pressured"; "more choices ... what you want to do ... rather than being forced to take it"
Controlling Mot / Competence Sat	<ul style="list-style-type: none"> - classes where it doesn't come as easy to me, the marks aren't there and I kind of just - I have to try a lot harder 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Competence Satisfaction -> Controlling Motivation (negative relationship)</p> <ul style="list-style-type: none"> - low competence satisfaction is related to increased controlling motivation: "classes where it doesn't come as easy to me ... I have to try a lot harder"
Relationships Between Achievement Goal Theory Constructs and Outcomes		

Mastery- Approach Goals / Performanc e-Approach Goals	<ul style="list-style-type: none"> - to be able to use it outside of class, not that the stuff that we learn that you can't apply right away isn't beneficial because you definitely have to get a background information ... but I really like the stuff that we're able to - you're able to use in some sort of a way - trying to do your best at it. - for every test ... I try to - especially earlier in the semester, I try to do as best as I can there rather than fall behind in courses - to do the best work that I can ... just to meet my own expectations - [when I say 'do as good as I can' I mean] by marks ... that's the only way I can really measure it ... some classes are going to be harder than others ... I would expect for myself to get better marks in certain ones than others... But yea, I guess it's more of a marks thing - it's the marks that measure it more for me the most - when I say that [I strive to do better than others] I'm just more or less, trying to do the best that I can, and I think that's just something that comes with it - I like to be able to know as much as I can, especially when you're in situations like that working with the lead athletes ... you don't want to be the guy that screwed something up, so it's nice to know as much as you can and be able to use it towards something - I feel like I could get a higher mark, just because I understand the stuff - I want to do the best that I can - the goal for me is to do as well as I can - if I know more about the overall topic, I kind of want to display it through my marks 	<p>UNIDIRECTIONAL RELATIONSHIP Mastery-approach goals --> Performance-approach goals (positive relationship)</p> <ul style="list-style-type: none"> - obtainment of mastery goals ("to know as much as I can") is related to obtainment of performance goals (demonstrating competence when working with athletes): "when I say that [I strive to do better than others] I'm just ... trying to do the best that I can, and I think that's just something that comes with it"; "I feel like I could get a higher mark, just because I understand the stuff" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - focuses on demonstration of competence but compares this to himself only, no clear distinction between performance and mastery: "to do as well as I can"; "to do your best"; "to do as best as I can"; "to do the best work that I can ... to meet my own expectations" HOWEVER, uses marks (performance goal) as indicator of "doing the best he can" <p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - sets both performance (to demonstrate competence by applying content outside of class) and mastery (understand the background information) goals in the same context, but prefers performance goals (use the content in some way): "it's nice to know as much as you can and be able to use it towards something"
Mastery- Approach Goals / Achieveme nt	<ul style="list-style-type: none"> - I think [my marks are] a reflection of just understanding the material - my marks definitely reflect just on how much I understand stuff - [in some courses] I feel like I could get a higher mark, just because I understand the stuff - if I know more about the overall topic, I kind of want to display it through my marks 	<p>UNIDIRECTIONAL RELATIONSHIP Mastery-approach Goals --> Achievement (positive relationship)</p> <ul style="list-style-type: none"> - obtainment of mastery goals is related to higher achievement: "I could get a higher mark, just because I understand the stuff"; "marks definitely reflect just on how much I understand"
Performanc e-Approach Goals / Academic Dedication	<ul style="list-style-type: none"> - it's just achieving the small goals of getting good marks and doing everything I can and then hopefully get accepted into that masters program ... Yea [my dedication to be accepted into the master's program makes me want to obtain the higher goals] - I definitely do take pride in ... not necessarily being better than others, but just ... doing good and getting good marks and it ends up being better than other people and everybody else kind of like knows ... after three years once you know everybody, they're kind of like "oh, these guys, they get pretty good marks", but I wouldn't say like that that's why I go to school or anything, I would just say that it's something that comes along with it for me 	<p>UNIDIRECTIONAL RELATIONSHIP Dedication -> Performance-approach goals (positive relationship)</p> <ul style="list-style-type: none"> - high dedication to attend a master's program is related to increased performance goals (get good marks) in order to be accepted into program <p>NO RELATIONSHIP Performance-approach goals --> Dedication</p> <ul style="list-style-type: none"> - obtaining performance goals does not increase dedication to academic activities (but does increase pride)

<p>Performance-Approach Goals / Academic Achievement</p>	<ul style="list-style-type: none"> - you have to obtain the high marks ... if you have like for instance, a midterm that's worth a lot and you mess it up there, it can be tough to make up the marks and then you have to make it up somewhere else - for every test ... I try to do as best as I can there rather than fall behind in courses where you're trying to make marks up later - [when I say 'do as good as I can' I mean] by marks ... that's the only way I can really measure it. - if I'm achieving good marks, I should be more or less top of the class and if I'm not getting as good as marks as everybody else then I'm not doing what I need to - if I know more about the overall topic, I kind of want to display it through my marks... that there's a reason that I'm better than them and that's because I get better marks - I wouldn't say that I necessarily am just trying to be better than everybody else or anything, I think it just comes along ... with wanting to get good grades - I could get a higher mark - I don't think I would set the goal for myself to be - to get as good of a mark in that one. I mean, I want to do the best that I can, and I'm just, I want to do good in the course but I don't think I would have my goal as high - I've kind of noticed from first year that I've progressively gotten better and gotten better marks and I think that makes me like higher my expectations of myself a little bit and realize that I can do more things, the better I do - the more I'm succeeding in the semesters and in classes at specific periods of time, the more I think that I can do and the better job I think I can do - I definitely want to be ... at the top of the class, or near the top of the class is just something that comes along with it for me. But, I definitely do take pride I would say, in not necessarily being better than others, but just getting - doing good and getting good marks and it ends up being better than other people and everybody else kind of like knows - like, after three years once you know everybody, they're kind of like "oh, these guys, they get pretty good marks" 	<p>UNIDIRECTIONAL RELATIONSHIP Achievement -> Performance-approach goals (positive relationship)</p> <ul style="list-style-type: none"> - obtaining high achievement is related to setting more and higher performance goals : "I've progressively gotten better and gotten better marks and I think that makes me like higher my expectations of myself a little bit and realize that I can do more things" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - obtaining high marks (achievement) is given as a direct performance goal (demonstration of competence) and is used to measure other performance goals ("to do as best as I can"): "get a higher mark" (i.e. defines performance goals in terms of marks: "I would[n't] set the goal for myself to be - to get as good of a mark ... I want to do the best that I can ... I want to do good in the course") - believes obtaining high achievement is the same as outperforming others (performance goal): "if I'm achieving good marks, I should be more or less top of the class"; "there's a reason that I'm better than them and that's because I get better marks"
<p>Performance-Approach Goals / Well-being</p>	<ul style="list-style-type: none"> - I think I wouldn't be upset with myself as much if it wasn't being as highly asked I guess - it kind of does bug me when I know that there's - not necessarily people that I'm smarter than, but I feel if I know more about the overall topic, I kind of want to display it through my marks and stuff like that I am - that there's a reason that I'm better than them and that's because I get better marks - I definitely do take pride I would say, in not necessarily being better than others, but ... doing good and getting good marks and it ends up being better than other people and everybody else kind of like knows - like, after three years once you know everybody, they're kind of like "oh, these guys, they get pretty good marks", but I wouldn't say like that that's why I go to school or anything, I would just say that it's something that comes along with it for me - I can't really say that there's anything that I think that I've miserably failed 	<p>UNIDIRECTIONAL RELATIONSHIP Performance-approach goals --> Wellbeing (positive and negative relationship, conditional)</p> <ul style="list-style-type: none"> - obtaining performance goals (demonstrating competence, getting good marks) is related to increased wellbeing (pride) - the need to obtain performance goals is related to low well-being: "I wouldn't be upset with myself as much if [grades needed to attend Master's program] wasn't being as highly asked" - not obtaining performance goals (not outperforming others, failing) is related to low well-being (bugs me, miserable), especially when he believes he is more competent in the area than the students who outperformed him <p>MEDIATED by competence satisfaction</p>
<p>Relationships Between Achievement Goal Theory and Self-Determination Theory Constructs</p>		

Mastery- Approach Goals / Intrinsic Motivation	<ul style="list-style-type: none"> - it becomes more interesting to me, the more beneficial it is to learn - to be able to use it outside of class, not that the stuff that we learn that you can't apply right away isn't beneficial because you definitely have to get a background information on the stuff, but I really like the stuff that we're able to - you're able to use in some sort of a way - if I'm in classes that I'm not highly interested in ... I just find it a lot harder to understand the material if I'm not interested in it - the easier it is to understand it, the more enjoying it is for me, it makes me want to work harder because at least I'm not working hard and I'm not having a good time doing it - the goals that I would set in a course that I really am interested in ... I would probably put a lot more time into that course, just because I feel like I could get a higher mark, just because I understand the stuff and I don't - and I find it enjoyable to study. - there's some classes that I definitely enjoy more than others and that I would rather learn about 	RECIPROCAL RELATIONSHIP Intrinsic Motivation --> Mastery-approach Goals (positive relationship, conditional) <ul style="list-style-type: none"> - low intrinsic motivation is related to low obtainment of mastery goals: "I just find it a lot harder to understand the material if I'm not interested in it" - high intrinsic motivation is related to setting mastery goals: "there's some classes that I definitely enjoy more than others and that I would rather learn about" and obtaining mastery goals: "the goals that I would set in a course that I really am interested in ... I would probably put a lot more time into that course, just because I feel like I could get a higher mark, just because I understand the stuff and ... I find it enjoyable to study" MEDIATED by autonomous motivation and competence satisfaction Mastery-approach Goals -> Intrinsic Motivation (positive relationship, conditional) <ul style="list-style-type: none"> - mastery goals (learning course content) is related to increased intrinsic motivation ("it becomes more interesting"): "the easier it is to understand it, the more enjoying it is for me" MEDIATED by autonomous motivation: mastery-intrinsic relationship especially prominent if the content is believed to be useful and applicable
Mastery- Approach Goals / Autonomous Motivation	<ul style="list-style-type: none"> - besides just learning stuff and enjoying what I do, I've also - we also get certified as certified personal trainers so we can use that towards jobs before we even graduate so that's good too - I find it important, especially in the beginning of the semester to start off as good as you can and then if you can continue that throughout the whole semester, then you're going to end up exceeding your expectations and then if you don't do as well as you intended to near the end, well then at least you have something to fall back on - the easier, for me, the easier it is to understand it, the more enjoying it is for me, it makes me want to work harder because at least I'm not working hard and I'm not having a good time doing it - I know that it'll be beneficial. Lots of the stuff that I learn I can use in the future when we're going to do student training, I can apply it ... I like to be able to know as much as I can, especially when you're in situations like that working with the lead athletes or something like that you don't want to be the guy that screwed something up, so it's nice to know as much as you can - in a course that I really am interested in ... I would probably put a lot more time into that course, just because I feel like I could get a higher mark, just because I understand the stuff ... and I find it enjoyable to study ... I want to do the best that I can ... I want to do good in the course but I don't think I would have my goal as high, just because it's not a course that I - that is as related to me - I put more time into it than a lot of people that I know, so I'd say that that dedication makes it easier for me to learn because I feel like the stuff I've understood well in the past, it's good that it can just transfer over as well and I think the good habits just keep going forward for me 	RECIPROCAL RELATIONSHIP <ul style="list-style-type: none"> - "I put more time into it ... makes it easier for me to learn because ...[what] I've understood well in the past ... it can just transfer over as well and I think the good habits just keep going forward for me" Autonomous Motivation --> Mastery-approach Goals (positive relationship) <ul style="list-style-type: none"> - autonomous motivation (believing learning will be beneficial and is important) is related to desire to set mastery goals (learn and understand the material) and obtaining mastery goals: "I put more time into it ... makes it easier for me to learn" - low autonomous motivation is related to lower mastery goals, but still sets mastery goals: "I want to do the best that I can ... but I don't think I would have my goal as high, just because it's not a course that ... is as related to me" Mastery-approach Goals -> Autonomous Motivation (positive relationship, conditional) <ul style="list-style-type: none"> - obtainment of mastery goals is related to increased autonomous motivation MEDIATED by intrinsic motivation "the easier, for me, the easier it is to understand it, the more enjoying it is for me, it makes me want to work harder" CONCEPTUAL SIMILARITY <ul style="list-style-type: none"> - believes obtaining mastery goals ("start off as good as you can") is important; autonomously motivated to obtain mastery goals: "I know that it'll be beneficial. Lots of the stuff that I learn I can use in the future"

Mastery- Approach Goals / Controlling Motivation	<ul style="list-style-type: none"> - when you're paying as much as students do for tuition ... I feel like it's a waste of money and time if you come here and you're not trying to do your best - I feel like the goals couldn't really change, like I already feel that ... the goal for me is to do as well as I can, so I don't think if there was external pressure telling me to do that that it would necessarily change that much 	<p>UNIDIRECTIONAL RELATIONSHIP Controlling Motivation --> Mastery-approach Goals (positive relationship) - controlling motivation (guilt over cost of tuition) is related to increased desire to obtain master goals (do your best)</p> <p>OTHER COMMENTS: - if one already sets high mastery goals ("to do as well as I can"), additional external pressures do not increase these goals further</p>
Mastery- Approach Goals / Competence Satisfaction	<ul style="list-style-type: none"> - I think [my competence is] a reflection of just understanding the material... it'll save me time on like studying and stuff like that if it just comes to me a lot easier. Anything like related to the human body or anything like that - and then classes where it doesn't come as easy to me, the marks aren't there and ... I have to try a lot harder - I feel like I could get a higher mark, just because I understand the stuff - I feel that I understand like a lot of the material that is presented to me - I just feel like I understand things pretty good and I just feel, I feel really confident - yea, more or less and just past achievement [makes me feel competent] and being interested in it and being willing to learn and learn new stuff and applying it to real world situations as well. 	<p>RECIPROCAL RELATIONSHIP Competence Satisfaction --> Mastery-approach Goals (positive relationship) - increased competence satisfaction is related to obtainment of mastery goals: "it'll save me time on like studying and stuff like that if it just comes to me a lot easier."</p> <p>Mastery-approach Goals -> Competence Satisfaction (positive relationship) - obtaining mastery goals is related to increased competence satisfaction: "I think [my competence is] a reflection of just understanding the material"; "I feel like I could get a higher mark, just because I understand the stuff"; "I just feel like I understand things pretty good and I just feel ... really confident"; "past achievement and... being willing to learn and learn new stuff [makes me feel competent]"</p> <p>CONCEPTUAL SIMILARITY - claiming to obtain mastery goals is conceptually similar to claiming one has high competence: "I feel that I understand like a lot of the material that is presented to me"; "I just feel like I understand things pretty good and I just feel, I feel really confident"</p>
Performanc e-Approach Goals / Intrinsic Motivation	<ul style="list-style-type: none"> - it becomes more interesting to me, the more beneficial it is to learn - to be able to use it outside of class, not that the stuff that we learn that you can't apply right away isn't beneficial ... you definitely have to get a background information ... but I really like the stuff that ... you're able to use in some sort of a way - in a course that I really am interested in ... I would probably put a lot more time into that course, just because I feel like I could get a higher mark, just because I understand the stuff and ... I find it enjoyable to study. For instance, anatomy, it's a lot of memorizing ... but I really enjoy it ... time sort of flies for me when I'm doing it, I don't find it that boring, and I can take it and use it in our training aspects that we do downstairs at Husky athletics which is nice oppose to the courses that ... for instance this semester I'm signed up for a course ... it's kind of dry though, and I don't think I would set the goal for myself ... to get as good of a mark in that one ... I want to do the best that I can ... I want to do good in the course but I don't think I would have my goal as high 	<p>RECIPROCAL RELATIONSHIP Intrinsic Motivation --> Performance-approach Goals (positive relationship, conditional) - low intrinsic motivation is related to setting low performance goals: "I'm [in] a course ... it's kind of dry ... and I don't think I would set the goal for myself ... to get as good of a mark in that one" - high intrinsic motivation (interest, enjoyment, "time flies when I'm doing it") is related to setting higher performance goals: "in a course that I really am interested in ... I feel like I could get a higher mark, just because I understand the stuff and ... I find it enjoyable to study."</p> <p>MEDIATED by Mastery goals & Autonomous Motivation: enjoyment of course is causes one to spend more time with course which cause one to obtain mastery goals which also leads to obtainment of performance goals; therefore, one chooses to sets performance goals because he believes they are likely to be obtained</p> <p>Performance-approach Goals -> Intrinsic Motivation (positive relationship) - course content that allows one to obtain performance goals (demonstrate competence: e.g. "to use in some sort of a way", "apply right way") is related to increased intrinsic motivation ("becomes more interesting", I really like [it]): "it becomes more interesting to me ... to be able to use it outside of class ... I really like the stuff that ... you're able to use in some sort of a way"</p>

<p>Performance-Approach Goals / Autonomous Motivations</p>	<ul style="list-style-type: none"> - I don't really like failure, so when I'm at school I'm here to get good marks - you can go on and use it toward other things rather than just writing multiple choice tests on how much you can memorize stuff so that's pretty good. - if I put a lot of work into it now, then it's going to be beneficial later down the road. So, hopefully it's just achieving the small goals of getting good marks ... and then hopefully get accepted into that masters program ... and then hopefully just complete that and do it all one step at a time - for the masters program that I'm applying to, the lowest mark to get in last year I think was an 80 or an 81 so usually I want to keep it as high above that as I can, not that that's always the easiest thing to do, but I want to at least try - I find the marks part a bit more important right now just because of what's being asked - if I'm achieving good marks, I should be more or less top of the class and if I'm not getting as good as marks as everybody else then I'm not doing what I need to ... not necessarily that I need to be better than everybody else, but I think just like working hard just kind of comes with it and it just allows more opportunities, for instance going into the honours program, they only take 8 to 10 kids and it's also marks driven, same with physio, it's whoever's the best - I know that it'll be beneficial. Lots of the stuff that I learn I can use in the future when we're going to do student training, I can apply it, like the concepts apply to there ... in situations like that working with the lead athletes or something like that you don't want to be the guy that screwed something up, so it's nice to know as much as you can and be able to use it towards something - I would probably put a lot more time into that course, just because I feel like I could get a higher mark, just because I understand the stuff and ... I find it enjoyable to study. For instance, anatomy, it's a lot of memorizing...and I can take it and use it in our training aspects that we do downstairs at Husky athletics - I want to do the best that I can ... I want to do good in the course but I don't think I would have my goal as high, just because it's not a course that I - that is as related to me - if I didn't succeed in something, I think - I don't think it necessary lowers my competence, I would say that it just makes me realize that I need to do better than what I'm doing, I wouldn't say that it necessarily makes me think that I can't do it, I just - it just makes me realize that I need to do better - if you're not planning to go on to a masters program there's not a ton of opportunities, so I think to do the best that I can in the college and allow for many more opportunities to open for me, is what makes it really important 	<p>RECIPROCAL RELATIONSHIP Autonomous Motivation -> Performance-approach Goals (positive relationship) - autonomous motivation to attend a Master's program is related to setting performance goals: "if I put a lot of work into it now, then it's going to be beneficial later down the road. So, hopefully it's just achieving the small goals of getting good marks"; "the lowest mark to get in last year I think was an 80 or an 81 so usually I want to keep it as high above that as I can" - believes autonomous motivation ("doing what I need to ... working hard ... allows more opportunities, for instance going into the honours program") is related to obtainment ("just kind of comes with it") of performance goals ("achieving good marks ... top of the class ... better than everybody else") - low autonomous motivation (not feeling that the course applies to one's future) is related to lower performance goals ("I want to do the best that I can ... but I don't think I would have my goal as high")</p> <p>Performance-approach Goals -> Autonomous Motivation (positive and negative relationship, conditional) - not obtaining performance goal is related to increased autonomous motivation: "if I'm not getting as good as marks as everybody else then I'm not doing what I need to"; "if I didn't succeed in something ... it just makes me realize that I need to do better than what I'm doing" - believe that one can obtain performance goals is related to increased autonomous motivation</p> <p>MEDIATED by mastery goals and intrinsic motivation: "I would probably put a lot more time into that course, just because I feel like I could get a higher mark, just because I understand the stuff and ... I find it enjoyable to study"</p> <p>CONCEPTUAL SIMILARITY - believes obtaining performance goals (marks, outperforming others, demonstrating competence) is important and beneficial: "I find the marks part a bit more important right now"; "[outperforming others] just allows more opportunities, for instance going into the honours program, they only take 8 to 10 kids and it's also marks driven"; "I know that it'll be beneficial. Lots of the stuff that I learn I can use in the future ... I can apply it"; "to do the best that I can in the college and allow for many more opportunities to open for me, is what makes it really important"</p> <p>CONTEXTUAL RELATIONSHIP - experiences high autonomous motivation and sets performance goals but feels autonomous motivation is more important than obtainment of performance goals: "you can go on and use it toward other things rather than just writing multiple choice tests on how much you can memorize ... so that's pretty good"</p>
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<p>Performance-Approach Goals / Controlling Motivation</p>	<ul style="list-style-type: none"> - when you're paying as much as students do for tuition...I feel like it's a waste of money and time if you come here and you're not trying to do your best at it. - I know lots of the acceptance is based on marks, so, if you don't have the marks to get in, there's not really another way... it's kind of like a lot of pressure all the time because if you mess it up, and they have to go back to your last 60 credits and you messed up a semester, then that semester's going to stick around for like two years, so I mean you can't really get out of it - my parents, I don't think that they would be mad if I say didn't go to school, but I think they know that I want to do well so I think that they - it's just kind of expected of me but I don't really think that I feel pressured to do it - since you have to obtain the high marks, I do kind of feel like every exam time is a lot more pressure-full, because ... for instance, a midterm that's worth a lot and you mess it up there, it can be tough to make up the marks and then you have to make it up somewhere else so I guess there's a bit of pressure in that - if I would feel more pressured to do well in school or ... do better than other classmates or anything, I feel like I do the best that I can already, so I don't really know how much better I can necessarily do if I had pressure on me more - if I had some huge scholarship and I had to maintain a 90 average, I mean I'd probably drop a few things in my life to make sure that happened, but like even just like pressure from my parents ... maybe if the college set a higher average that I had to obtain or something like that, I might try a little harder, but I don't really feel like there's any external pressures that makes me do it - I feel like the goals couldn't really change, like I already feel that the - the goal for me is to do as well as I can, so I don't think if there was external pressure telling me to do that that it would necessarily change that much 	<p>RECIPROCAL RELATIONSHIP Controlling Motivation --> Performance-approach Goals (facilitating relationship, conditional)</p> <ul style="list-style-type: none"> - controlling motivation (guilt from cost of tuition) is related to setting performance goals: "I feel like it's a waste of money and time if you come here and you're not trying to do your best at it" BUT increased controlling motivation may not further increase performance goals: "if I would feel more pressured to do well in school or ... do better than other classmates... I do the best that I can already, so I don't really know how much better I can necessarily do if I had pressure on me more"; "the goal for me is to do as well as I can, so I don't think if there was external pressure telling me to do that that it would necessarily change" - high controlling motivation is related to greater effort spent to obtain performance goals: "if I had some huge scholarship and I had to maintain a 90 average ... I'd probably drop a few things in my life to make sure that happened, but like even just like pressure from my parents ... maybe if the college set a higher average that I had to obtain ...I might try a little harder" - low controlling mot. does not need to lack of performance goals: "I don't think [my parents] would be mad if I say didn't go to school ... they know that I want to do well ... I don't really think that I feel pressured to do it" <p>Performance-approach Goals -> Controlling Motivation (positive relationship, conditional)</p> <ul style="list-style-type: none"> - desire to obtain performance goals (get high marks) is related to increased controlling motivation ("it's kind of like a lot of pressure all the time"): "since you have to obtain the high marks, I ... feel like every exam time is a lot more pressure-full ... it can be tough to make up the marks ... there's a bit of pressure in that" <p>MEDIATED by autonomous motivation to be accepted into a master's program</p> <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - source of controlling motivation may impact it's effect on performance goals
<p>Perf.-Goals / Autonomy Sat</p>	<ul style="list-style-type: none"> - since I don't feel forced by anybody, I feel like my goal to do well in school is basically my own more or less and it's not pressured on by anybody else, it's just, I'm doing it for what I want to do 	<p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - experiences high autonomy satisfaction ("I don't feel forced by anybody", "I'm doing it for what I want to do") and chooses to set performance goals ("to do well") but no clear evidence that these variables influence each other

<p>Performance-Approach Goals / Competence Satisfaction</p>	<ul style="list-style-type: none"> - for the masters program that I'm applying to, the lowest mark to get in last year I think was an 80 or an 81 so usually I want to keep it as high above that as I can, not that that's always the easiest thing to do, but I want to at least try - some classes are going to be harder than others ... I would expect for myself to get better marks in certain ones than others - I kind of like to establish myself as somebody who's more or less smart in the college ... I've just always been a competitive person, so I definitely know that if, if I'm achieving good marks, I should be more or less top of the class - I feel like I could get a higher mark. - I feel like I do the best that I can already, so I don't really know how much better I can necessarily do - the better I do at school I guess, the more confidence it gives myself to do even better - yea, more or less and just past achievement [makes me feel competent] - the goals that I have for myself in school gives me - I guess it gives me a little more competence to believe that I can get it done - being more competent in the stuff that I'm doing gives me the ability to set the bar higher for myself and have higher goals rather than if I - if I didn't think that I could do it - if I'm succeeding at the stuff that I set, then I think that my competence would even be higher, so I think if I'm setting goals and I'm achieving them, then I think, yea my confidence does go up, I can't really think of a situation where I thought I failed miserably that it's gone down, so, I would say - yea I would say it goes both ways - I would say obtaining the goal makes me feel more confident, but I would say if I didn't succeed in something ... I don't think it necessary lowers my competence - the better I do, the more confident I feel, so like the more I'm succeeding in the semesters and in classes at specific periods of time, the more I think that I can do and the better job I think I can do - based on how competent I am, I think that it makes me want to work harder and get better grades 	<p>RECIPROCAL RELATIONSHIP</p> <ul style="list-style-type: none"> - I would say it goes both ways <p>Competence Satisfaction -> Performance-approach Goals (positive relationship)</p> <ul style="list-style-type: none"> - level of competence satisfaction influences the level of performance goals set: "I want to keep it as high above that as I can"; "some classes are going to be harder than others [so] I would expect for myself to get better marks in certain ones than others"; "being more competent in [what] I'm doing gives me the ability to set the bar higher ... and have higher goals rather than ... if I didn't think that I could do it"; "based on how competent I am, I think that it makes me want to ... get better grades" - desire to increase one's competence satisfaction is related to setting performance goals: "I ... like to establish myself as somebody who's ... smart ... if I'm achieving good marks, I should be ... top of the class" - if one has very high competence, it may cease to effect their performance goals: "I feel like I do the best that I can already, so I don't really know how much better I can necessarily do" <p>Performance-approach Goals -> Competence Satisfaction (facilitating relationship)</p> <ul style="list-style-type: none"> - obtaining performance goals is related to increased competence satisfaction: "the better I do at school ... the more confidence it gives myself to do even better"; "the better I do, the more confident I feel" - BUT lack of performance goals does not hinder competence satisfaction: "if I'm succeeding ... then I think that my competence would even be higher, so I think if I'm setting goals and I'm achieving them, then ... my confidence does go up, I can't really think of a situation where I thought I failed miserably that it's gone down"; "obtaining the goal makes me feel more confident, but I would say if I didn't succeed in something ... I don't think it necessary lowers my competence" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - high competence satisfaction and believe that one can obtain performance goals are conceptually similar: "I feel like I could get a higher mark"
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E-4. VARIABLE MATRIX FOR INTERVIEWEE I4

Explanations of Constructs as Experienced by Interviewee I4		
Construct	Explanation	Comments
Intrinsic Motivation	<ul style="list-style-type: none"> - well, currently I actually don't [derive any interest or enjoyment from academic activities]... I'm in commerce. I want to be in architecture school - I do enjoy learning though - I find life long learning and life long knowledge [especially interesting enjoyable] and on all different bases too... all sorts of different academic disciplines - my art history class is very interesting... It's my only class that I'm actually working towards my goal as an architect. But I find it really interesting and really fascinating - The multidisciplinary base of knowledge [I find fascinating]... We study all sorts of different things - I just want to do something that I absolutely love and if I'm poor, so be it - It's really difficult to be motivated to do something that you actually don't really want to do. I really don't like any of my commerce classes. 	<p>KEYWORDS for intrinsic motivation present:</p> <ul style="list-style-type: none"> - "interesting", "enjoy", "fascinating", "absolutely love" <p>KEYWORDS for intrinsic motivation not present:</p> <ul style="list-style-type: none"> - "boring", "isn't very fun", "means to an end", "didn't engage me" <p>FOSTERED by:</p> <ul style="list-style-type: none"> - courses related to long term future goals - variety of topics within course - novelty of content <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - Very context specific i.e. can be intrinsically motivated towards some classes and not others at the same time - courses related to future goals or major most enjoyable/interesting <p>CONCLUDED "LEVEL" : MODERATE (low toward current academic activities; high toward future career goals)</p>
Autonomous Motivation	<ul style="list-style-type: none"> - I figure if you're going to come to school and you want to do something, why don't you do it right the first time and commit yourself to what you're doing. Whether you like it or whether you don't but you're here... you should do the best you can do while you're here - You do only live once and life is very short and at any moment in time... something can happen and that's it - so if, I figure as far as the academic part of it goes, I always want to learn as much as I can in the shortest time that I can and pass it on to as many people as I can - I see it as what else would I be doing that would be putting me in the same direction if I wasn't at university right now? You know, I might be doing something temporary, that I could probably sustain myself on and enjoy a bit more but like what am I going to do when I'm like thirty five or forty or when I have a kid - I don't know.... I don't really know why I'm here doing what I'm doing. - I can't change that I'm here now. I can't put myself in an architecture school instantly... I guess this is a means to somewhere else - I force myself to do things - I try to learn as much as I can from a lot of different sources and different ways to learn - I would set a goal and then I would engage in the right amount of academic activity to try and reach that goal. I would put in this much academic effort or maybe a little more to make sure i could give it my best shot at getting that goal - if I don't get something I won't leave it alone, you know, I will come back to it until it's fixed. Until I understand it. - before I came to university I thought I would go through maybe just to get a degree to get a really high paying job - I'm an artist. I do a lot of painting I do carving I build all sorts of things and I just have such a hard time coming to school and sitting and reading a book. Like [university is] such a small narrow perception of learning, but that's what's widely accepted by society and I have huge issues with that - I like to be self-determining 	<p>KEYWORDS for autonomous motivation present:</p> <ul style="list-style-type: none"> - "I figure" - "commit yourself" - "I want to..." - "I guess this is a means to somewhere else" - "I force myself to do things" - "self-determining" <p>KEYWORDS for autonomous motivation not present:</p> <ul style="list-style-type: none"> - "I don't really know why I'm here doing what I'm doing" - "that's what's widely accepted by society and I have huge issues with that" <p>FOSTERED by:</p> <ul style="list-style-type: none"> - Belief that academic activities are necessary to obtain major life goals (i.e. degree, long-term income). Having a clear life goal may enhance this - Recognizing benefit of knowing and understanding content - Belief that engaging in academic activities directly enhances understanding of material - Acknowledgement of sacrifices to attend university (i.e. time, money; e.g. "important to do it right the first time"). - Underlying desire to "do your best" or "understand" and be autonomously motivated in all contexts; not articulated well, but seems to feel there is no other way than to be autonomously motivated. <p>HINDERED BY:</p> <ul style="list-style-type: none"> - not recognizing university as "the best" method of learning or achieving one's life goals <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - seems to be highly self-regulated and thus autonomously engages in courses but lacks autonomous motivation toward university in general - "you should do" may reflect autonomous self-control suggesting he may experience internalized controlling motivation <p>CONCLUDED "LEVEL": MODERATE</p>

Controlling Motivation	<ul style="list-style-type: none"> - I've paid a lot of money to be here - I come from a family that are all academic maybe they've actually pushed me to be here a little bit against my will in some ways - partially because a lot of other people did too, so the social pressure to go to university. Apparently it's the right thing to do. - family pressure is a reason why I come for sure - I run two small business on the side I don't need to come here [for financial reasons], I'm sure I could make a living doing something different - there are small social pressures to come - Social trends, yea for me, yea - considering the ones who have the money. - before I came to university I thought I would go through maybe just to get a degree to get a really high paying job ... Since I've gotten here and I've started to - I want to go into architecture and for me now the goals kind of changed - I've always been pushed to be in the top of the class - I do feel that I was extremely pressured into coming here. So, I guess that would be the moderate to not having much part in my choice for my motive of being here. - I basically was told I have to go or else... my grandmother told me if I don't go to university I'm no longer part of the family.. I think the decision was made for me to come to university basically to work towards goals that I didn't want - I usually do feel guilty though however after [doing something I enjoy instead of studying] - Like [university is] such a small narrow perception of learning, but that's what's widely accepted by society and I have huge issues with that 	<p>KEYWORDS used for controlling motivation present:</p> <ul style="list-style-type: none"> - "paid a lot of money" - "pushed" - "a lot of other people did" - "pressured" - "decision was made for me" - "apparently it's the right thing to do" (apparently indicates he does not endorse this sentiment) - "I feel guilty" <p>KEYWORDS used for controlling motivation not present:</p> <ul style="list-style-type: none"> - "I could make a living doing something different" <p>FOSTERED by:</p> <ul style="list-style-type: none"> - Societal pressure to attend (perception that others feel it is morally necessary) - Pressure from family members or guardians, especially from those with university education - Acknowledgement of financial sacrifice <p>HINDERED by:</p> <ul style="list-style-type: none"> - Belief that university education is not crucial to attaining future financial success <p>CONCLUDED "LEVEL": HIGH</p>
Mastery Goals	<ul style="list-style-type: none"> - I'll just do it the best that I can do and if its not as good as I thought I could do that's okay it happens - Yea, that's definitely true [that I strive to understand the material and learn as much as possible] - I found it extremely difficult and challenging but I really got a good grasp on the concept of it - what's the worth of it? they paid a lot of money and they didn't learn anything. They have a number on a piece of paper. Yea - so, the second semester when it came around, I had the opportunity, I could have changed teachers but I stayed with her because I knew that I would learn more and I paid a lot of money and I'd rather learn. - I always want to learn as much as I can in the shortest time that I can - I just want to learn - I'll just get out of bed and have to figure it out and work on it until it's figured - It's no use to just memorize stuff 	<p>KEYWORDS for setting mastery goals:</p> <ul style="list-style-type: none"> - "do it the best that I can do" - "got a good grasp on the concept" - "I'd rather learn" - "want to learn as much as I can" - "just want to learn" - "have to figure it out" - "no use to just memorize" <p>KEYWORDS for not setting mastery goals:</p> <ul style="list-style-type: none"> - desire for knowledge and understanding in general <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - compared against memorization, being easy, or getting a good mark - differentiation from performance goals unclear; keyword "do" initially associated with performance goals - to demonstrate competence - but, may also refer to mastery goals i.e. "to do the best that I can" - distinction between setting of a mastery goal and obtainment of a mastery goal may be relevant in discussing relationships with other variables <p>CONCLUDED "LEVEL": HIGH</p>

Performance Goals	<ul style="list-style-type: none"> - I'll just do it the best that I can do and if its not as good as I thought I could do that's okay it happens - being in the top like 5% of the class or in the top of the class - I still had one of the top averages - what's the worth of [having a mark on a piece of paper]? they paid a lot of money and they didn't learn anything. - or just doing the best I could. I meant he goal is always to get 100% - Like, we got the top mark in our class on our proposal and we got a 74. That's the best that most people do, yea. - You still want to get high marks. 	<p>KEYWORDS for setting performance goals:</p> <ul style="list-style-type: none"> - "being in the top 5% of the class" - "one of the top averages" - "goal is always to get 100%" - "best that most people do" - "still want to get high marks" <p>*unclear whether numerical grades should be used to reflect construct of performance goals</p> <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - Does not compare himself to others (definition of performance goal), but still focused on demonstrating rather than acquiring competence (more performance goal orientated than mastery goal orientated); Currently unclear whether theoretical definition requires comparison to other students AND demonstration of competence, or one or the other; appears as though these two components can be independent of each other i.e. "I'll just do it the best that I can do" - NOTE: conceptual similarity between performance goals, competence, and achievement. Performance goal must refer to clear goal that is set to demonstrate competence as oppose to a statement demonstrating satisfaction of need for competence - distinction between setting of a performance goal and obtainment of a performance goal may be relevant in discussing relationships with other variables <p>CONCLUDED "LEVEL": HIGH</p>
Autonomy Satisfaction	<ul style="list-style-type: none"> - [Art History is] my only elective this term - it's my only non-commerce class. - I like to be self-determining and I don't really fit into the norm - moderately free because time. It's a time constraint - I don't really feel very free right now to do [the hobbies that] I want to do at all - I don't really feel very free... if I had no constraints right now I would not be here, I would be like somewhere half way across the world. - at the end of the day, I'm the one who does decide exactly what I want to do - like, I can study or I can go and do an art class... I just choose what I want to do - I do have a moderate ability to choose my goals and stuff and whether I would be at university. - I know myself so tomorrow I'm going rock climbing for two hours right before that exam and I know that.. if some people studied, they would do better but I know for myself I need that mental break - the second semester when it came around, I had the opportunity, I could have changed teachers - I think the decision was made for me to come to university basically to work towards goals that I didn't want 	<p>KEYWORDS for high autonomy satisfaction:</p> <ul style="list-style-type: none"> - "elective" - "like to be self-determining" - "I'm the one who does decide exactly what I want to do" - "I just choose what I want to do" - "I do have a moderate ability to choose" - "I know for myself [what is best]" - "I had the opportunity, I could have changed teachers" - "I could have changed" <p>KEYWORDS for low autonomy satisfaction:</p> <ul style="list-style-type: none"> - "It's a time constraint" - "don't really feel very free" - "if I had no constraints I would not be here" - "decision was made for me" <p>FOSTERED by:</p> <ul style="list-style-type: none"> - knowing what is best or one's self and personal desire to be self-determining - institutional factors (e.g. electives) <p>HINDERED by:</p> <ul style="list-style-type: none"> - time constraints <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - Context specific; e.g. high autonomy to choose how to engage with courses but low autonomy to choose whether to be enrolled in university <p>NOTE: coded for <i>satisfaction</i> of need for autonomy, NOT demonstration of need for autonomy</p> <p>CONCLUDED "LEVEL": LOW</p>

Competence Satisfaction	<ul style="list-style-type: none"> - I got a hundred in some of the classes, you know and then you come here - and I knew [marks would be lower] to an extent - I usually have - end up pretty high in the class. - most things I've ever done in my life I've done well at. But not because I'm a natural at anything. I think it's just because I put a lot of work in - I think I'm a fairly competent person ... I know that if I push hard and work really hard at things I think I can reach those goals ... I know myself fairly well and I know what I can and can not do - I do kind of believe I just don't memorize words very well... pictures I memorize really well... my art history class I found very easy just because she'll ask about a specific picture and what the picture was doing and I'd have that burned into my mind - That's the type of learner I am, I'm hands on and I don't forget those things... I can't memorize stuff very well... but if you told me to build something like - that's more natural - I found it extremely difficult and challenging but I really got a good grasp on the concept of it - as a challenge I taught myself math 20 ... I struggled through and made myself understand 	<p>KEYWORDS for high competence satisfaction:</p> <ul style="list-style-type: none"> - "I got a 100 in some classes" - "pretty high in the class" - "most things I've done, I've done well at" - "I'm a fairly competent person" - "I got a good grasp on the concept" - "that's the type of learner I am" <p>KEYWORDS for low competence satisfaction:</p> <ul style="list-style-type: none"> - "I just don't memorize words well" - "I struggled through" <p>FOSTERED by:</p> <ul style="list-style-type: none"> - past satisfaction / demonstration of competence - belief that one works hard to obtain competence - knowing one's self and the competencies and incompetencies <p>OTHER COMMENTS:</p> <p>- Distinction between satisfaction of competence in general life and in a specific class; can also be satisfied by certain aspects of the class (i.e. remembering photos) but not others (i.e. memorizing words).</p> <p>CONCLUDED "LEVEL": HIGH</p>
Academic Dedication	<ul style="list-style-type: none"> - Yea, I do [think about dropping out] - I really hope that I don't have to complete my degree. Because I do want to go to architecture school... if I don't get into architecture school, I'll maybe apply to a BFA and if I don't get in I will drop out actually 	<p>KEYWORDS for high dedication:</p> <ul style="list-style-type: none"> - "I do want to go to architecture school" - <p>KEYWORDS for low dedication:</p> <ul style="list-style-type: none"> - "I will drop out" <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - Very context specific; may be highly motivated to get one degree but consider dropping out rather than obtain a different degree - Dedication to complete <i>current</i> degree not an accurate determinant as may plan to transfer to a different degree or switch majors to one in which one is dedicated <p>CONCLUDED "LEVEL": MODERATE</p>
Academic Achievement	<ul style="list-style-type: none"> - first year math here I got like a 93 - you get a 73 	<p>KEYWORDS for high achievement:</p> <ul style="list-style-type: none"> - specific absolute numerical value: 93 <p>CONCLUDED "LEVEL": HIGH</p>
Well-being	<ul style="list-style-type: none"> - <u>Being in commerce is actually quite negatively impacting me in some ways but</u> I do a lot of other things that make me like really happy. Like all my hobbies and stuff. Those greatly outweigh commerce. - I'm usually a pretty happy person. It's just the way I've been brought up - <u>Maybe a little negatively actually, to an extent [well-being impacted by academic activities]</u> 	<p>KEYWORDS for high wellbeing:</p> <p>"happy"</p> <p>KEYWORDS for low wellbeing:</p> <p>"negatively impacting me"</p> <p>FOSTERED by: things outside of academia</p> <p>HINDERED by: dissatisfaction with current courses</p> <p>CONCLUDED "LEVEL": MODERATE</p>
Relationships Between Constructs as Experienced by Interviewee I4		
<p>NO DATA for the following relationships:</p> <ul style="list-style-type: none"> Controlling Motivation / Academic Dedication Controlling Motivation / Academic Achievement Autonomy Satisfaction/ Academic Dedication Autonomy Satisfaction / Academic Achievement Autonomy Satisfaction / Competence Satisfaction Mastery Goals/ Academic Dedication PerformanceGoals / Academic Dedication 		
Relationships Between Outcome Variables and Motivation Types		

Intrinsic Mot. / Dedication	- I do want to go to architecture school [because I am interested in and enjoy architecture]... if I don't get in I will drop out actually	UNIDIRECTIONAL RELATIONSHIP: Intrinsic Motivation --> Dedication (positive relationship) - if intrinsically motivated toward course, dedicated to complete it; if not intrinsically motivated, no dedication to complete it
Autonomous Motivation / Academic Dedication	- that's probably why I think about dropping out sometimes because my grandfather who didn't go to university, he managed just fine... I think that that really really had an influence on me there too... I really kind of disagree with university education to an extent. - I really hope that I don't have to complete my degree... I do want to go to architecture school... if I don't get in I will drop out	UNIDIRECTIONAL RELATIONSHIP Autonomous motivation --> Dedication (positive relationship) - If high autonomous motivation (feel academic activities instrumental to life goal), then high dedication - If low autonomous motivation (feel university not best way to obtain goals), low dedication OTHER COMMENTS: - distinction between dedication to complete current degree and dedication to get a degree in general
Intrinsic Motivation / Academic Achievement	- I really don't like any of my commerce classes. But, somehow I'm still passing them and doing really well - like I've had - gotten above an 80 average last semester.	NO RELATIONSHIP - high academic achievement regardless if intrinsic motivation high or low possibly MEDIATED by Mastery goals or Autonomous motivation: - Intrinsic Motivation -> Achievement relationship possibly mediated by desire to obtain mastery goals or autonomous motivation such that low intrinsic motivation does not hinder academic achievement if student also mastery goal orientated and/or autonomously motivated OTHER COMMENTS: - possibly fundamental attribution error when discussing one's own achievement e.g. "I earn high grades because I am smart, not because I enjoy the class and work toward high grades"
Autonomous Motivation / Academic Achievement	- in commerce classes - you get a [low grade] and you ask why and they say just because. Oh well that's motivating [sarcasm] - if you're getting really bad marks you know to work harder. - Like, we got the top mark in our class on our proposal and we got a 74 [and I was demotivated because] they don't really appreciate what you do - [getting a low grade] actually really ticks me off sometimes and will make me work a lot harder to try and get a better grade... if you're getting really bad marks you know to work harder...	UNIDIRECTIONAL RELATIONSHIP: Achievement -> Autonomous Motivation (conditional negative relationship) - low achievement enhances autonomous motivation as it is perceived as a signal to "work harder", but only if one feels the low grade is justified (receiving low grades with no explanation hinders motivation).
Intrinsic Motivation / Well-being	- I'd answer these all differently if I was in architecture and that - it would all be the opposite, I'd be very happy with what I'm doing.	UNIDIRECTIONAL RELATIONSHIP: Intrinsic motivation --> Well-being (positive relationship) - If intrinsically motivated toward program one is enrolled, then positive well-being; if not intrinsically motivated toward program, then negative well-being
Autonomous Motivation / Well-being	- I'll just get out of bed and have to figure it out and work on it until it's figured you know and I guess [high autonomous motivation to obtain mastery goal is] good and it's also bad because it's kind of psychotic in a way - [a low mark] actually really ticks me off sometimes and will make me work a lot harder to try and get a better grade	RECIPROCAL RELATIONSHIP - Autonomous motivation -> Well-being (negative relationship) - being highly autonomously motivated is perceived to hinder well-being as he can not 'let things go' and is anxious if academic activities are not completed - Well-being --> Autonomous motivation (negative relationship) - MEDIATED by performance goals: - low wellbeing increases autonomous motivation to achieve future goals if does not obtain set performance goals

Ctrl. Mot. / Well-being	<p>[tone and facial expressions while discussing controlling motivation suggest that it negatively affects his well-being]</p> <p>- My motives for engaging in academic activities? No, that doesn't make me happy at all. That's actually quite a burden. Being in commerce is actually quite negatively impacting me in some ways</p>	<p>UNIDIRECTIONAL RELATIONSHIP Controlling Motivation --> Well-being (negative relationship) - high controlling motivation hinders well-being</p>
Relationships Between Outcome Variables and Needs Satisfaction		
Competence Satisfaction / Academic Dedication	<p>- [university is not the only or best way to develop competence] and that's probably why I think about dropping out sometimes because my grandfather who didn't go to university, he managed just fine... [university is] one very narrow form of learning</p> <p>- That's the type of learner I am, I'm hands on... I can't memorize stuff very well... that's why maybe I spend so much time having to study is because it's just memorizing. But if you told me to build something like - that's more natural and that's maybe why I shouldn't be here in some ways</p>	<p>UNIDIRECTIONAL RELATIONSHIP Competence Satisfaction -> Dedication (conditional positive relationship) - In comparison to practical activities, academic activities do not satisfy competence as much, leading to lower dedication toward academia despite high absolute competence satisfaction from doing well in academia MEDIATED by Autonomous Motivation: - does not believe that university is best way to satisfy competence (so not autonomously motivated to attend), so low dedication even though classes satisfy competence</p>
Competence Satisfaction / Academic Achievement	<p>- as a challenge I taught myself math 20 - the whole thing - It was my lowest high school grade by 20 percent - I got a 73, but I don't regret it at all. Just because I have a really good understanding of it now</p> <p>- I do feel that [low grades] really do undermine my level of competence and just the amount of work that I put in - you put in a lot of work on something and you get undermined by [a low grade]... it might temporarily [hinder my sense of competence]</p> <p>- I got like a 93 in my [university] math class and I found it really easy probably just because I struggled through and made myself understand it in...grade 10</p>	<p>RECIPROCAL RELATIONSHIP Competence --> Achievement (positive relationship) - feeling competent in an area (e.g. by learning material previously) is believed to contribute to higher marks Achievement --> Competence (positive relationship) - obtaining high marks enhances competence - obtaining low marks hinders competence MEDIATED by Mastery goal attainment: - users numerical marks to illustrate competence; but, low mark (e.g. 73) does not reflect poor competence satisfaction if mastery goal obtained (understand material) - if mastery goal is obtained, competence satisfaction is not hindered by obtaining a low grade</p>
Autonomy Sat. / Well-being	<p>- Being in commerce is actually quite negatively impacting me in some ways but I [freely choose to] do a lot of other things that make me like really happy. Like all my hobbies and stuff.</p>	<p>UNIDIRECTIONAL RELATIONSHIP Autonomy Satisfaction -> Well-being (positive relationship) - being able to freely do things one enjoys enhances well-being</p>
Competence Sat. / Well-being	<p>- I struggled through and made myself understand it</p>	<p>UNIDIRECTIONAL RELATIONSHIP Competence Satisfaction -> Well-being (positive relationship) - low competence satisfaction hinders well-being (e.g. by forcing him to struggle to achieve understanding)</p>
Relationships Between Motivation Types and Needs Satisfaction		
Intrinsic Motivation / Autonomous Motivation	<p>- Whether you like it or whether you don't but you're here ... you should do the best you can do while you're here</p> <p>- my art history class is very interesting... It's my only class that I'm actually working towards my goal as an architect. But I find it really interesting and really fascinating</p> <p>- I just want to do something that I absolutely love and if I'm poor, so be it. And just do what I want to do</p> <p>- I don't know... I don't really know why I'm here doing what I'm doing. But, I'm here and it's okay I guess. It's really difficult to be motivated to do something that you actually don't really want to do. I really don't like any of my commerce classes.</p> <p>- I really don't enjoy what I'm doing but I'm still - I'm doing it well. I think partially... I just wanted to do the best that I can do at the moment that I'm in. I can't change that I'm here now. I can't put myself in an architecture school instantly. So, I just - like I guess this is a means to somewhere else</p>	<p>RECIPROCAL RELATIONSHIP Autonomous motivation --> Intrinsic Motivation (positive relationship) - If high autonomous motivation, may be more likely to also be interested/enjoy course - if low autonomous motivation (don't see class as important to future goals) likely to also have low intrinsic motivation (not find it interesting) Intrinsic motivation --> Autonomous motivation (positive relationship) - if no intrinsic motivation, difficult to maintain autonomous motivation; aided if have a clear end goal and task can be seen as 'means to an end'</p> <p>CONCEPTUAL SIMILARITY - May be autonomously motivated to find something in which one is intrinsically motivated (e.g. see intrinsic motivation as something that is important)</p> <p>OTHER COMMENTS: - High autonomous motivation may mediate negative effects of low intrinsic motivation</p>

Intrinsic Motivation / Controlling Motivation	<ul style="list-style-type: none"> - I've changed a lot mentally. I've matured like a lot and changed - maybe I could say before I came to university I thought I would go through maybe just to get a degree to get a really high paying job and do all my activities and fun stuff in my spare time... Since I've gotten here... I want to go into architecture and for me now the goals kind of changed - I just want to do something that I absolutely love and if I'm poor, so be it. 	CONTEXTUAL RELATIONSHIP <ul style="list-style-type: none"> - Prominent motivations can be fluid e.g. previously motivated by possibility of a reward (high income; controlling motivation) but now claims to be more motivated by "love" for what he is doing (intrinsic motivation) - Shift from controlling to intrinsic is seen as "maturing", "changing for the better" - Intrinsic and controlling motivation perceived to not coexist (e.g. discusses ultimate goal of a high paying job or doing something that he loves, but doesn't acknowledge possibility of obtaining both simultaneously)
Autonomous Motivation / Controlling Motivation	<ul style="list-style-type: none"> - I feel it's important because I come from a family that are all academic maybe they've actually pushed me to be here a little bit. against my will in some ways and such but I did come here - because yea, I just want to learn and I see it as what else would I be doing that would be putting me in the same direction if I wasn't at university right now? You know, I might be doing something temporary, that I could probably sustain myself on and enjoy a bit more but like what am I going to do when I'm like thirty five or forty or when I have a kid - Apparently it's the right thing to do. - I think the decision was made for me to come to university basically to work towards goals that I didn't want so now I'm changing my goals to be my actual goals that I want - not what they want 	CONTEXTUAL RELATIONSHIP <ul style="list-style-type: none"> - Autonomous and controlling motivation can co-exist e.g. he feels pressured by others to attend university in general but also sees the importance in it and is autonomously motivated to pursue his own specific career choices - He also appears to have adopted some views of those who pressured him, thus shifting motivation from controlling to autonomous i.e. society's view that it is the "right thing to do"
Intrinsic Motivation / Autonomy Satisfaction	<ul style="list-style-type: none"> - my art history class is very interesting. It's my only elective this term. It's my only class that I'm actually working towards my goal as an architect. But I find it really interesting and really fascinating. - I don't reach my goals if I don't make the decisions to do things that I enjoy - I just choose what I want to do and it's usually something that I actually enjoy... 	UNIDIRECTIONAL RELATIONSHIP Autonomy satisfaction --> Intrinsic motivation (positive relationship) <ul style="list-style-type: none"> - being free to choose classes (e.g. electives) allows student to engage in course for which he is intrinsically motivated - being free to choose how to engage with classes allows student to engage in ways that they enjoy OTHER COMMENTS: <ul style="list-style-type: none"> - having the freedom to choose to engage in things which one finds intrinsically motivating leads to attainment of goals - discusses only freedom to make choices, not freedom to be himself
Intrinsic Motivation / Competence Satisfaction	<ul style="list-style-type: none"> - I really don't like any of my commerce classes. But, somehow I'm still passing them and doing really well - like I've had - gotten above an 80 average last semester - I really don't enjoy what I'm doing but I'm still - I'm doing it well. - my art history class is very interesting ... I find it really interesting and really fascinating my art history class I found very easy just because she'll ask about a specific picture and what the picture was doing and I'd have that burned into my mind 	UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Competence Satisfaction (positive relationship, facilitating) <ul style="list-style-type: none"> - When intrinsically motivated, feel more competent in class (understands material better) BUT no evidence that competence is hindered by lack of intrinsic motivation (students appears to feel competent even when uninterested) possibly MEDIATED by Master goals or Autonomous Motivation: <ul style="list-style-type: none"> - low intrinsic motivation may not hinder competence satisfaction if student also mastery goal orientated and/or autonomously motivated
Autonomous Mot. / Aut. Satisfaction	<ul style="list-style-type: none"> - I force myself to do things I guess, that's why I feel moderately free I feel - like, I do have a - at the end of the day, I'm the one who does decide exactly what I want to do to do - like, I can study or I can go and do an art class or I can go do some pottery 	UNIDIRECTIONAL RELATIONSHIP Autonomous motivation --> Autonomy satisfaction (negative relationship, impeding) <ul style="list-style-type: none"> - Autonomy satisfaction is hindered by extreme autonomous self-regulation such that he does not feel free even though he is the one forcing themselves to engage in academic activities

Autonomous Motivation / Competence Satisfaction	<ul style="list-style-type: none"> - if I don't get something I won't leave it alone, you know, I will come back to it until it's fixed. Until I understand it. So, I think that that might make me more competent at things. It's just because I have a lot of drive and I'm really really really stubborn at stuff like that - I don't - like, I can't sleep at night if I didn't get something - The more academic activities you engage in... the more competent you become and I think for myself that's kind of the case. I try to learn as much as I can from a lot of different sources and different ways to learn - so that would be the academic activities right. And that probably does make me more competent 	<p>UNIDIRECTIONAL RELATIONSHIP: Autonomous Motivation --> Competence satisfaction (positive relationship) MEDIATED by variable Mastery goals: - autonomously motivated to understand material, work on problems, and engage in academic activities, which leads to greater perceived competence</p> <p>OTHER COMMENTS: - may also depend on strong belief that engagement in academic activities will lead to competence satisfaction</p>
Controlling Motivation / Autonomy Satisfaction	<ul style="list-style-type: none"> - I usually do feel guilty though however after [choosing to do an activity that I enjoy instead of studying].. there's just not enough time to do what [professors] want you to do. - I do feel that I was extremely pressured into coming here. So, I guess that would be the moderate to not having much part in my choice for my motive of being here. - basically was told I have to go or else... my grandmother told me if I don't go to university I'm no longer part of the family.. I think the decision was made for me to come to university basically to work towards goals that I didn't want 	<p>RECIPROCAL RELATIONSHIP Autonomy satisfaction --> Controlling motivation (positive relationship) - satisfying need for autonomy can lead to feelings of guilt when time pressures are present Controlling Motivation --> Autonomy Satisfaction (negative relationship) - if pressured to attend in general, autonomy satisfaction not satisfied while attending</p> <p>CONCEPTUAL SIMILARITY - Strong controlling motivation to attend university implies lack of autonomy in whether or not to attend</p>
Contr. Mot / Comp. Sat.	I've always been pushed to be in the top of the class and I usually have - end up pretty high in the class.	<p>UNIDIRECTIONAL RELATIONSHIP Controlling Motivation --> Competence Satisfaction (positive relationship) - high family pressure to succeed in school has led to high competence satisfaction</p>
Relationships Between Achievement Goal Theory Constructs and Outcomes		
Mastery Goals / Performance Goals	<ul style="list-style-type: none"> - I'll just do it the best that I can do and if its not as good as I thought I could do that's okay it happens - I found it extremely difficult and challenging but I really got a good grasp on the concept of it where as my friends that were in other just arts and science sections - said it was a very easy class but when you have a conversation with them they don't understand anything - what's the worth of [obtaining a good mark if you do not understand the material]? they paid a lot of money and they didn't learn anything. - Sure I might have got a lower mark than some of my peers that probably aren't smarter or didn't work as hard for that mark but I still learned a lot more [by enrolling in a class with a more challenging professor] - I got a [low grade], but I don't regret it at all. Just because I have a really good understanding of it now - I'm doing it well. I think partially - maybe part of it is because I just wanted to do the best that I can do at the moment that I'm in. 	<p>CONCEPTUAL SIMILARITY - Does not compare himself to others (mastery goal), but still focused on demonstrating rather than acquisition of competence (performance goal) - claim to value mastery goals (learning) more than performance goals (marks), but in explaining why, states that mastery goals allow one to understand material better <i>than others</i> which reflects a performance goal orientation - Suggests that desire to demonstrate competence and compete with others still present despite acknowledgement of intrinsic value of acquiring knowledge for its own sake</p> <p>OTHER COMMENTS: - despite initially stating performance goals, describes mastery goals as more important or more valued - possible result of desirability bias - negative effects of not obtaining performance goal may be mediated if accompanying mastery goal is obtained</p>
Mastery Goals / Academic Achievement	<ul style="list-style-type: none"> - Sure I might have got a lower mark than some of my peers that probably aren't smarter or didn't work as hard for that mark but I still learned a lot more that way - as a challenge I taught myself math 20 ... It was my lowest high school grade by 20 percent - I got a 73, but I don't regret it at all. Just because I have a really good understanding of it now 	<p>NO RELATIONSHIP - No direct relationship (can have low achievement even if obtained mastery goal)</p> <p>OTHER COMMENTS: - This student values attainment of mastery goal more than high academic achievement - mastery goals mediate achievement->well-being relationship such that if mastery goal attained, well-being not threatened by low grade (achievement-wellbeing relationship not of interest to this study)</p>

Mastery Goals / Well-being	<ul style="list-style-type: none"> - I'll just do it the best that I can do and if its not as good as I thought I could do that's okay it happens - if I don't always get [the goal to do well] I'm not extremely disappointed - I struggled through and made myself understand it 	<p>UNIDIRECTIONAL RELATIONSHIP Mastery Goals -> Well-being (conditional negative relationship) - desire to obtain mastery goal hinders well-being in instances where obtainment of goal is a "struggle"</p> <p>OTHER COMMENTS: - Not obtaining mastery goal does not appear to hinder well-being for this student (possibly social desirability bias given importance of mastery goals described earlier)</p>
Performance Goals / Academic Achievement	<ul style="list-style-type: none"> - Sure I might have got a lower mark than some of my peers that probably aren't smarter or didn't work as hard for that mark - <u>I got a hundred in some [high school] classes ... and then you come here - and [my marks are lower] I knew that that would happen to an extent but you still want to get high marks</u> - I mean the goal is always to get 100% but you never do - [getting a low grade] will make me work a lot harder to try and get a better grade. - Like, we got the top mark in our class on our proposal and we got a 74. That's the best that most people do, yea. 	<p>UNIDIRECTIONAL RELATIONSHIP Achievement --> Performance goal (negative relationship) - not obtaining a performance goal (low grade) causes him to set an even higher goal (higher grade) to numerically 'make up for it' or 'average out'</p> <p>CONCEPTUAL SIMILARITY - Performance goals defined in terms of marks, often relative to other students but also absolute marks</p>
Performance Goals / Well-being	<ul style="list-style-type: none"> - I'll just do it the best that I can do and if its not as good as I thought I could do that's okay it happens - I set my goals [to do well] fairly high and I try to follow through with them but if I don't always get them I'm not extremely disappointed - [getting a low grade] actually really ticks me off 	<p>UNIDIRECTIONAL RELATIONSHIP Performance Goals -> Well-being (conditional positive relationship) - not obtaining a performance goal can hinder well-being but does not always do so (unclear what conditions are needed for this relationship to occur; possible social desirability bias) - possibly mediated by Mastery goals: negative effect of not obtaining performance goal mediated if accompanying mastery goal is obtained</p>
Relationships Between Achievement Goal Theory and Self-Determination Theory Constructs		
Mastery Goals / Intrinsic Motivation	<ul style="list-style-type: none"> - I do enjoy learning though. - Yea, I find life long learning and life long knowledge [especially interesting enjoyable] and on all different bases too, not - well, all sorts of different academic disciplines - I really don't enjoy what I'm doing but I'm still - I'm doing it well. I think partially - maybe part of it is because I just wanted to do the best that I can do at the moment that I'm in. 	<p>RECIPROCAL RELATIONSHIP Mastery Goal --> Intrinsic Motivation (positive relationship) - Obtaining mastery goal "learning" is enjoyable, suggesting that forming mastery goals promotes intrinsic motivation</p> <p>Intrinsic Motivation --> Mastery Goal (positive relationship) - When one enjoys material, they strive to learn it (set mastery goals)</p> <p>OTHER COMMENTS: - student is intrinsically motivated to pursue mastery goal, but not academic activities in general</p>

Mastery Goals / Autonomous Motivation	<ul style="list-style-type: none"> - I just want to learn and I see it as what else would I be doing that would be putting me in the same direction if I wasn't at university right now? - I figure as far as the academic part of it goes, I always want to learn as much as I can in the shortest time that I can - I would set a goal and then I would engage in the right amount of academic activity to try and reach that goal. I would put in this much academic effort or maybe a little more to make sure I could give it my best shot at getting that goal - I just wanted to do the best that I can do at the moment that I'm in. I can't change that I'm here now. I can't put myself in an architecture school instantly. So, I just - like I guess this is a means to somewhere else - I do have to understand and get those goals... if I don't get something I won't leave it alone, you know, I will come back to it until it's fixed. Until I understand it. - It's just because I have a lot of drive... I can't sleep at night if I didn't get something. Like, I'll just get out of bed and have to figure it out and work on it until its figured - the more you learn, the more competence you become and I think for myself that's kind of the case. I try to learn as much as I can from a lot of different sources and different ways to learn - so that would be the academic activities right. - I struggled through and made myself understand it 	<p>RECIPROCAL RELATIONSHIP, but primarily direction of Mastery goal -> Autonomous Motivation</p> <p>Mastery Goal --> Autonomous Motivation</p> <ul style="list-style-type: none"> - desire to achieve mastery goal "to learn" causes one to be autonomously motivated towards university; autonomous motivation directly influenced by nature of goal i.e. setting a mastery goal causes one to be motivated to obtain it <p>Autonomous Motivation --> Mastery Goals</p> <ul style="list-style-type: none"> - feels learning is important and therefore sets mastery goals <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - mastery goals are seen as important and freely chosen, therefore autonomously motivated to obtain
Mastery Goals / Controlling Motivation	<ul style="list-style-type: none"> - what's the worth of [obtaining a good mark if you do not understand the material]? they paid a lot of money and they didn't learn anything. - I paid a lot of money and I'd rather learn. 	<p>UNIDIRECTIONAL RELATIONSHIP Controlling motivation --> Mastery goal (positive relationship)</p> <ul style="list-style-type: none"> - appears to set mastery goals as a result of financial guilt <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - obtaining a mastery goal "learning" may protect against negative effects of controlling motivation i.e. 'I felt forced but at least I benefitted from the class'
Mastery Goals / Aut. Sat.	<ul style="list-style-type: none"> - I could have changed teachers but I stayed with her because I knew that I would learn more... I'd rather learn [than get high grades]... learned a lot more that way - I don't reach my goals if I don't make the decisions to do things that I enjoy 	<p>UNIDIRECTIONAL RELATIONSHIP Autonomy satisfaction --> mastery goal attainment (positive relationship)</p> <ul style="list-style-type: none"> - Ability to freely choose how to engage in class aids in achieving mastery goals
Mastery-Approach / Competence Satisfaction	<ul style="list-style-type: none"> - as a challenge I taught myself math 20 - the whole thing - It was my lowest high school grade by 20 percent - I got a 73, but I don't regret it at all. Just because I have a really good understanding of it now - if I don't get something I won't leave it alone ... Until I understand it. So, I think that that might make me more competent at things. - the more academic activities you engage in and the more you learn, the more competence you become and I think for myself that's kind of the case. - I try to learn as much as I can from a lot of different sources and different ways to learn - so that would be the academic activities right. And that probably does make me more competent - I got a [low grade], but I don't regret it at all. Just because I have a really good understanding of it now - I think I'm a fairly competent person and I set high goals [to figure out material] because I know that if I push hard and work really hard at things I think I can reach those goals... I will push myself to try and do a little better every time 	<p>RECIPROCAL RELATIONSHIP Mastery Goal -> Competence satisfaction (positive relationship)</p> <ul style="list-style-type: none"> - desire to obtain mastery goal, and actual obtainment of goal, increases competence satisfaction <p>Competence satisfaction --> Mastery goals (positive relationship)</p> <ul style="list-style-type: none"> - competence satisfaction influences mastery goals set such that he sets goals he feels competent to obtain - if general competence satisfied, set higher mastery goals

Performance Goals / Intrinsic Motivation	<ul style="list-style-type: none"> - I really don't like any of my commerce classes. But, somehow I'm still passing them and doing really well - I really don't enjoy what I'm doing but I'm still - I'm doing it well. - I don't reach my goals if I don't make the decisions to do things that I enjoy 	<p>UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Performance Goal attainment (positive relationship, facilitating) - if engaging in activities for which one is intrinsically motivated, performance goal attainment is easier - possibly MEDIATED by Wellbeing: - enjoying activities makes obtaining performance goals easier even if activities are not directly related to performance goal, suggesting possibly mediated increased by well-being - BUT goal appears to be obtained whether or not intrinsically motivated - possibly MEDIATED by Mastery Goals or Autonomous Motivation: - low intrinsic motivation may not hinder performance goal attainment if student also mastery goal orientated and/or autonomously motivated</p>
Performance Goals / Autonomous Motivation	<ul style="list-style-type: none"> - I would set a goal and then I would engage in the right amount of academic activity to try and reach that goal. I would put in this much academic effort or maybe a little more to make sure I could give it my best shot at getting that goal... or just doing the best I could. I mean the goal is always to get 100% but you never do - I know what I can and can not do but I will push myself to try and do a little better every time - [getting a low grade] will make me work a lot harder to try and get a better grade... if you're getting really bad marks you know to work harder... - Whether you like it or whether you don't but you're here... you should do the best you can do while you're here - I just wanted to do the best that I can do at the moment that I'm in. 	<p>CONCEPTUAL SIMILARITY - he is autonomously motivated to obtain performance goals (both co-exist but may not influence each other)</p> <p>UNIDIRECTIONAL RELATIONSHIP Performance Goal --> Autonomous Motivation (positive and negative relationship) - strong desire to achieve performance goal increases autonomous motivation; - not obtaining performance goal increases his autonomous motivation - MEDIATED by well-being: - not obtaining performance goal decreases well-being and he is autonomously motivated to increase well-being by future obtainment of performance goal</p>
Performance Goals / Contr. Mot.	I've always been pushed to be in the top of the class	<p>UNIDIRECTIONAL RELATIONSHIP Controlling Motivation --> Performance goals (positive relationship) - sets performance goals because feels pressured by family to obtain them</p>
Performance Goals / Autonomy Satisfaction	<ul style="list-style-type: none"> - I don't do really really well - I don't reach my goals if I don't make the decisions to do things that I enjoy.. - I know myself so tomorrow I'm going rock climbing... right before that exam and I know that... if some people studied, they would do better but I know for myself I need that mental break ...and that helps me ultimately actually reach the goal - I know what I can and can not do but I will push myself to try and do a little better every time 	<p>UNIDIRECTIONAL RELATIONSHIP Autonomy satisfaction --> Performance goals (positive relationship) - Autonomy satisfaction promotes attainment of performance goals because he feels free to do what is best for him to obtain the goals - Autonomy satisfaction allows him to freely set performance goals</p>
Performance Goals / Competence Satisfaction	<ul style="list-style-type: none"> - I got a hundred in some of the classes, you know and then you come here - and I knew that that would happen to an extend but you still want to get high marks. - I know what I can and can not do but I will push myself to try and do a little better every time - I usually have - end up pretty high in the class. - I really got a good grasp on the concept of it where as my friends that were in other just arts and science sections - said it was a very easy class but when you have a conversation with them they don't understand anything 	<p>RECIPROCAL RELATIONSHIP Competence Satisfaction --> Performance Goal (positive relationship) - Feels highly competent and therefore sets high performance goals - Sets performance goals he feels competent to achieve</p> <p>Performance Goal -> Competence Satisfaction (positive relationship) - Obtaining performance goals enhances competence satisfaction</p> <p>CONCEPTUAL SIMILARITY - Achieving performance goals also seen as an indicator of competence - compares his own competence satisfaction with that of other students</p>

E-5. VARIABLE MATRIX FOR INTERVIEWEE A1

Explanations of Constructs as Experienced by Interviewee A1

Construct	Explanation	Comments
Intrinsic Motivation	<ul style="list-style-type: none"> - right now lots of my classes pretty boring because [they] don't really relate strictly to your major - so right now when I'm taking a bunch of classes that are of irrelevant to me, it kind of isn't very much fun for me. - Well lots of my professors are very interesting people... you can tell when they're really into the course and they're really passionate about what they teach and that's pretty interesting and you can meet some neat people and learn some pretty interesting stuff depending on the class. 	<p>KEYWORDS for intrinsic motivation present: "interesting", "passionate"</p> <p>KEYWORDS for intrinsic motivation not present: "boring", "isn't very much fun"</p> <p>FOSTERED by:</p> <ul style="list-style-type: none"> - courses related to long term career goals / major; - courses that she finds personally relevant; - engaging professors who are passionate about the course <p>OTHER COMMENTS: - context specific i.e. can be intrinsically motivated towards some classes and not others at the same time</p> <p>CONCLUDED "LEVEL": LOW (she doesn't illustrate intrinsic motivation throughout entire interview except when directly asked)</p>
Autonomous Motivation	<ul style="list-style-type: none"> - [I engage in academic activities] so that I can learn the stuff I need to know so that I can get my degree. - And it's just kind of always been my personal choice to get what I want, so that's why I [engage in academic activities]. - Mostly because I can't get where I want in my future without [engaging in academic activities]. - I want to try to take in as much as I can because that makes it way easier to study for the exam... - I just wanted to go to University so that I could learn what I needed to learn. - I studied as hard as I could, I have only missed one Geography lecture this year because he doesn't like post his slides or anything so I need to be there so that I can learn all the material - I came to University with the goal of getting my degree. I know that if I were to drop out, I wouldn't get my degree. I wouldn't get to go where I want to in life. And even if I dropped out and then come back, my degree I want is long. Like I'm in psychology ... if I dropped out and came back that would just be more years that I spend not doing what I want to do. 	<p>KEYWORDS for autonomous motivation present:</p> <ul style="list-style-type: none"> - "I can't get where I want in my future without it" - "I want to... because..." - "I need to... so that..." <p>KEYWORDS for autonomous motivation not present:</p> <ul style="list-style-type: none"> - I don't really know why I'm here doing what I'm doing <p>FOSTERED by:</p> <ul style="list-style-type: none"> - Belief that academic activities are necessary to obtain major life goals (i.e. degree) as well as short term goals (i.e. easier to study for exam) - Recognizing benefit of knowing and understanding content for future endeavors (i.e. to be qualified for future job) - Belief that engaging in academic activities directly enhances understanding of material <p>OTHER COMMENTS: - Autonomous motivation evident as she has thought about her future and sees university education as her best or only choice; however, never mentions personal importance of university and does not demonstrate autonomous motivation besides simply desiring to obtain a degree</p> <p>CONCLUDED "LEVEL": MODERATE</p>
Controlling Motivation	<ul style="list-style-type: none"> - my parents never said that I have to go to University ... I've never really felt any pressure from my friends or anyone saying, you gotta go to University, 'cause I have some friends that went to University and some friends that didn't - I was a smart kid, well smart in high-school... so it was always, people asking me "where are you going to school next year," not "are you going to school next year"... when people say "where are you going to school next year," it's like if I were to say that I'm not they'd be disappointed and shocked and be like that's not who she is... Why isn't she going? - as a first year student there are a lot of classes that you have to take - you pay all this money to go these courses 	<p>KEYWORDS used for controlling motivation present:</p> <ul style="list-style-type: none"> - "they'd be disappointed and shocked" - "classes that you have to take" - "you pay all this money" <p>KEYWORDS used for controlling motivation not present:</p> <ul style="list-style-type: none"> - "parents never said I have to" - "I've never felt any pressure" <p>FOSTERED by:</p> <ul style="list-style-type: none"> - Societal pressure to attend (i.e. others expect her to go) - Acknowledgement of financial sacrifice to attend university <p>HINDERED by:</p> <ul style="list-style-type: none"> - having friends who do not attend university - lack of parental pressure <p>OTHER COMMENTS: - Can be course-specific i.e. pressured to take certain degree requirements but not pressured toward university overall</p> <p>CONCLUDED "LEVEL": MODERATE</p>

Mastery- Approach Goals	<ul style="list-style-type: none"> - [I engage in academic activities] so that I can learn the stuff I need to know so that I can get my degree. - when I go to the classes I want to try to take in as much as I can - you might as well learn something - My primary goal would be to learn and to take in as much as I can - the whole goal for coming [to university] was so that I could learn stuff, obviously carrying over into my classes my goal was to learn things... I just wanted to go to University so that I could learn what I needed to learn. - most people who go to University, their goal is to you know, learn stuff - I need to be there so that I can learn all the material and succeed 	<p>KEYWORDS for setting mastery goals:</p> <ul style="list-style-type: none"> - “learn the stuff I need to know”, “learn something”, “to learn”, “learn stuff”, “learn things”, “learn all the material” - “take in as much as I can” <p>FOSTERED by:</p> <ul style="list-style-type: none"> - desire to “succeed” or get degree and the belief that learning material is required for this - recognition of time and money sacrifices - belief that most people in university form the goal “to learn” <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - Three Distinctions among goal “To learn the material”: 1. learning because one feels they “need to know” the material; 2. learning because one has the desire to “want to know” the material; 3. one feels they must attend or has made financial sacrifice so “might as well learn” - repeats phrase “learn what I need to know” but does not discuss desire to thoroughly understand content, suggesting goal is to learn material to the extent required to obtain degree rather than to enhance personal understanding <p>CONCLUDED “LEVEL”: MODERATE</p>
Performance- Approach Goals	<ul style="list-style-type: none"> - I just want to do well in the classes... for some classes It’s like I strive to be high 70s and for some classes it’s sometimes like if I don’t fail them I’m happy with that mark. - when you get your class average back and stuff I like to see if I did better or not... [my friends and I] we’re always comparing marks and I would like to do better than them but I don’t typically do much better than them. - I never wanted to start going to University so that I could be better than everyone else - my main goal was just to pass the class - most people who go to University, their goal is to... succeed - I’ve had goals to just do well in my classes - I came to University with the goal of getting my degree. - I have the goal to do well in my classes 	<p>KEYWORDS for setting performance goals:</p> <ul style="list-style-type: none"> - “want to do well in the classes” - “I strive to be high 70s” - “don’t fail”; “pass the class” - “I would like to do better than them” - “succeed” - “getting my degree” <p>KEYWORDS for not setting performance goals:</p> <ul style="list-style-type: none"> - “I never wanted to start going to University to be better than everyone” <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - Distinction between 4 main types: <ol style="list-style-type: none"> 1. obtain absolutely high marks (e.g. high 70s) 2. do relatively better than others (e.g. better than them) 3. pass the course 4. ultimately obtain degree (e.g. demonstration of competence) - Type of performance goal can be course-specific; one can strive for absolutely high mark in one class and to simply not pass a course in another. - Although mentioned “learning” numerous times, when specifically asked, only gives performance goals <p>CONCLUDED “LEVEL”: HIGH</p>
Autonomy Satisfaction	<ul style="list-style-type: none"> - it’s just kind of always been my personal choice to get what I want, so that’s why I do it. - when you’re in high-school, it’s very small, I was in a graduating class with about 45 people ... and like most of my lectures are like three times that size at least, and so when you’re in high- school there’s a lot of, you know, conform and do what you’re told and whatever. In University it’s like you’re adults. Come to class, don’t come to class. Do the work, don’t do the work. It’s never like, don’t be who you are. - I have people in my classes and they come to school with pink hair and craziness and you can tell that obviously being who they want to be and no one’s telling them, don’t be this person - that the freedom to be myself - because as a first year student there are a lot of classes yo have to take - there are some people who are like, “ No, I don’t go to my classes or whatever” , but I’m like, “I have the freedom to choose to go to all my classes” 	<p>KEYWORDS for high autonomy satisfaction:</p> <ul style="list-style-type: none"> - “always been my personal choice” - “it’s like we’re adults” - <u>“it’s never like, don’t be who you are”</u> - <u>“freedom to be myself”</u> - <u>“I have the freedom to choose to go”</u> <p>KEYWORDS for low autonomy satisfaction:</p> <ul style="list-style-type: none"> - “conform and do what you’re told” - “don’t be this person” - “there are a lot of classes you have to take” <p>FOSTERED by:</p> <ul style="list-style-type: none"> - recognizing that other students at university are being ‘who they are’ - unregulated structure of university compared to high school - large size of university classes - feeling personally autonomous in general (e.g. in other life situations) <p>HINDERED by:</p> <ul style="list-style-type: none"> - being forced to take course requirements <p>OTHER COMMENTS:</p> <p>3 Contexts discussed:</p> <ol style="list-style-type: none"> 1. Autonomy to choose how to engage with courses 2. Autonomy to choose whether to be enrolled in university 3. Autonomy to be yourself at university <p>CONCLUDED “LEVEL”: MODERATE</p>

Competence Satisfaction	<ul style="list-style-type: none">- I was a smart kid, well smart in high-school- I would like to do better than them but I don't typically do much better than them.- I always struggled with [Geography]- I was told to really expect a 20% mark drop and I haven't really, in most of my classes I haven't really hit the full 20% drop so that makes me feel like I'm doing pretty good and I am usually around where the class average is and I'm not failing any classes so.... I'm doing pretty good. So I am okay in my classes- when I get kind of lower marks I'm like I suck at everything, I can't do anything, but then when I get my marks that are decent then I'm like, I'm doing okay and I can do this.	<p>KEYWORDS for high competence satisfaction:</p> <ul style="list-style-type: none">- "I was a smart kid"- "I'm doing pretty good"- "around class average"- "not failing"- "I'm doing okay, I can do this" <p>KEYWORDS for low competence satisfaction:</p> <ul style="list-style-type: none">- "I don't typically do much better than them"- "I always struggled"- "I suck at everything"- "I can't do anything" <p>FOSTERED by:</p> <ul style="list-style-type: none">- previous academic success- positive comparisons with other students (at class average) <p>OTHER COMMENTS:</p> <ul style="list-style-type: none">-Discusses competence satisfaction toward university specifically- Competence satisfaction can fluctuate greatly between high school and university <p>CONCLUDED "LEVEL": MODERATE</p>																
Academic Dedication	<ul style="list-style-type: none">- I know that if I were to drop out, I wouldn't get my degree... even if I dropped out and then come back, my degree I want is long. Like, I'm in Psychology ... that would just be more years that I spend- if I drop out I can't get my degree.	<p>KEYWORDS for high dedication:</p> <ul style="list-style-type: none">- "if I drop out, I can't get my degree" <p>FOSTERED by:</p> <ul style="list-style-type: none">- having clear career goals- desire to achieve career goals as soon as possible <p>CONCLUDED "LEVEL": HIGH</p>																
Academic Achievement	<ul style="list-style-type: none">-high 70s-high 60s-I got higher marks- I was told to really expect a 20% mark drop and I haven't really, in most of my classes I haven't really hit the full 20% drop- when I get kind of lower marks... when I get my marks that are decent	<p>KEYWORDS for high achievement: "decent", "high"</p> <p>KEYWORDS for low achievement: "drop", "lower"</p> <p>OTHER COMMENTS:</p> <ul style="list-style-type: none">- demonstrates achievement with specific absolute numerical values of grades and relative comparisons- 60 is subjectively high for this student <p>CONCLUDED "LEVEL": MODERATE</p>																
Well-being	<ul style="list-style-type: none">- Like if I was completely sucking in University, I wouldn't have a very positive outlook on life. But lots of that is also that I have a lot of friends that came up from my small town here. And I have a job that is good most of the time and things like that- Natural sciences just drive me up the wall, so right now when I'm taking a bunch of classes that are of irrelevant to me, it kind of isn't very much fun for me.	<p>KEYWORDS for high wellbeing: "positive outlook on life"</p> <p>KEYWORDS for low wellbeing:</p> <ul style="list-style-type: none">- "driving me up the wall"- "isn't very much fun" <p>FOSTERED by: things outside of academia (e.g. friends, job)</p> <p>HINDERED by: specific classes</p> <p>CONCLUDED "LEVEL": MODERATE</p>																
Relationships Between Constructs as Experienced by Interviewee A1																		
<p>NO DATA for the following relationships:</p> <table><tr><td>Intrinsic Motivation / Academic Dedication</td><td>Performance-Approach Goals /Controlling Motivation</td></tr><tr><td>Controlling Motivation / Academic Dedication</td><td>Performance-Approach Goals /Intrinsic Motivation</td></tr><tr><td>Intrinsic Motivation / Academic Achievement</td><td>Mastery-Approach Goals / Competence Satisfaction</td></tr><tr><td>Autonomous Motivation / Well-being</td><td>Mastery-Approach Goals /Intrinsic Motivation</td></tr><tr><td>Autonomy Satisfaction/ Academic Dedication</td><td>Mastery-Approach Goals / Academic Dedication</td></tr><tr><td>Competence Satisfaction / Academic Dedication</td><td>Autonomy Satisfaction / Competence Satisfaction</td></tr><tr><td>Autonomy Satisfaction / Academic Achievement</td><td>Intrinsic Motivation / Competence Satisfaction</td></tr><tr><td>Autonomy Satisfaction / Well-being</td><td>Intrinsic Motivation / Autonomous Motivation</td></tr></table>			Intrinsic Motivation / Academic Dedication	Performance-Approach Goals /Controlling Motivation	Controlling Motivation / Academic Dedication	Performance-Approach Goals /Intrinsic Motivation	Intrinsic Motivation / Academic Achievement	Mastery-Approach Goals / Competence Satisfaction	Autonomous Motivation / Well-being	Mastery-Approach Goals /Intrinsic Motivation	Autonomy Satisfaction/ Academic Dedication	Mastery-Approach Goals / Academic Dedication	Competence Satisfaction / Academic Dedication	Autonomy Satisfaction / Competence Satisfaction	Autonomy Satisfaction / Academic Achievement	Intrinsic Motivation / Competence Satisfaction	Autonomy Satisfaction / Well-being	Intrinsic Motivation / Autonomous Motivation
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Relationships Between Outcome Variables and Motivation Types																		

Autonomous Motivation / Academic Dedication	<p>- Ya totally because my motives are to get my degree and if I drop out I can't get my degree.</p> <p>- I came to University with the goal of getting my degree. I know that if I were to drop out, I wouldn't get my degree. I wouldn't get to go where I want to in life. And even if I dropped out and then come back, my degree I want is long. Like I'm in psychology. You understand that it's a long degree, so if I dropped out and came back that would just be more years that I spend not doing what I want to do.</p>	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Dedication -> Autonomous Motivation (positive relationship) - highly dedicated to complete degree, so autonomously motivated to complete degree</p>
Autonomous Motivation / Achievement	I studied as hard as I could, I have only missed one... lecture this year because... I need to be there so that I can learn all the material ... and I'm sitting at high 60s in that class so it's working for me I guess	<p>UNIDIRECTIONAL RELATIONSHIP: Autonomous Motivation -> Achievement (positive relationship) - if autonomously motivated, earns higher marks (relative to her own standards)</p>
Controlling Motivation / Achievement	- I was a smart kid, well smart in high-school so I got higher marks so it was always, people asking me where are you going to school next year, not are you going to school next year and things like that... when people say where are you going to school next year, it's like if I were to say that I'm not they'd be disappointed and shocked	<p>UNIDIRECTIONAL RELATIONSHIP Achievement --> Controlling Motivation (positive relationship) - high previous achievement may increase perceived societal and family pressure to attend university; high achievement preceded feelings of being socially pressured to attend</p>
Intrinsic Motivation / Well-being	- right now lots of my classes pretty boring, because as a first year student there are a lot of classes that you have to take that don't really relate strictly to your major, like I'm taking a Geography class right now and Natural sciences just drive me up the wall, so right now when I'm taking a bunch of classes that are of irrelevant to me, it kind of isn't very much fun for me.	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Intrinsic Motivation --> Well-being (positive relationship) - If not intrinsically motivated toward course, then low well-being</p>
Controlling Motivation / Well-being	- as a first year student there are a lot of classes that you have to take that don't really relate strictly to your major, like I'm taking a Geography class right now and Natural sciences just drive me up the wall, so right now when I'm taking a bunch of classes that are of irrelevant to me, it kind of isn't very much fun for me.	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Controlling Motivation --> Well-being (negative relationship) - feeling forced to take a course hinders well-being</p>
Relationships Between Outcome Variables and Needs Satisfaction		
Competence Satisfaction / Academic Achievement	<p>- I was a smart kid, well smart in high-school so I got higher marks</p> <p>- Definitely [competence is related to my grades] when I get kind of lower marks I'm like I suck at everything, I can't do anything, but then when I get my marks that are decent then I'm like, I'm doing okay and I can do this</p> <p>- In most of my classes I haven't really hit the full 20% drop so that makes me feel like I'm doing pretty good [so that is why I feel competent]</p>	<p>RECIPROCAL RELATIONSHIP</p> <p>Achievement -> Competence (positive relationship) - obtaining a low grade hinders competence satisfaction and obtaining a high grade or demonstrating high achievement promotes competence</p> <p>Competence satisfaction -> Achievement (positive relationship) - she believes that high achievement in high school was result of being a competent student (however, she does not indicate that lower achievement in university is result of being incompetent)</p>
Comp. Sat./ Well-being	if I was completely sucking in University, I wouldn't have a very positive outlook on life.	<p>UNIDIRECTIONAL RELATIONSHIP Competence Satisfaction -> Well-being (positive relationship) - low competence satisfaction hinders well-being</p>
Relationships Between Motivation Types and Needs Satisfaction		
Intrinsic Motivation / Controlling Motivation	- right now lots of my classes pretty boring, because as a first year student there are a lot of classes that you have to take that don't really relate strictly to your major... I'm taking a bunch of classes that are of irrelevant to me, it kind of isn't very much fun for me	<p>CONTEXTUAL RELATIONSHIP</p> <p>- appears as though one can either be intrinsically or controlling motivated within a course but not both; e.g. doesn't acknowledge possibility of enjoying a class even though it is required and implies all first year requirements will not be enjoyed simply because they are requirements</p> <p>OTHER COMMENTS: - lack of intrinsic motivation seems to have more effect on well-being than presence of controlling motivation</p>

Autonomous Mot. / Controlling Mot.	my parents never said that I have to go to University, um, I've never really felt any pressure from my friends or anyone saying, you gotta go to University, 'cause I have some friends that went to University and some friends that didn't. And it's just kind of always been my personal choice to get what I want, so that's why I do it.	UNIDIRECTIONAL RELATIONSHIP (negative relationship, facilitating) Controlling motivation —> Autonomous motivation - lack of pressure (controlling motivation) allows her to feel purely autonomously motivated
Intrinsic Motivation / Autonomy Sat.	- right now lots of my classes pretty boring, because as a first year student there are a lot of classes you have to take... I'm taking a bunch of classes that are of irrelevant to me, it kind of isn't very much fun for me	UNIDIRECTIONAL RELATIONSHIP Autonomy satisfaction --> Intrinsic motivation (positive relationship) - not intrinsically motivated toward required classes because she feels they are class she "has" to take
Autonomous Motivation / Autonomy Sat.	- And it's just kind of always been my personal choice to get what I want, so that's why I [engage in academic activities]. - I guess a little bit [my freedom to make my own choices and be myself is related to my motives for engaging in academic activities] because I guess I mean, if you think about it there are some people who are like, "No, I don't go to my classes or whatever", but I'm like, "I have the freedom to choose to go to all my classes"	UNIDIRECTIONAL RELATIONSHIP Autonomy Satisfaction --> Autonomous motivation (positive relationship) - because she freely makes personal choices regarding her academic activities, she chooses to autonomously engage in them
Autonomous Motivation / Competence Satisfaction	- Ya [I think they are related] well since they're pretty much the same - if I didn't feel competent then I would probably be like I didn't have to go to this class, because I'm not doing well in it anyways and going won't help me - I studied as hard as I could, I have only missed one Geography lecture this year because he doesn't like post his slides or anything so I need to be there so that I can learn all the material and stuff so and I'm sitting at high 60s in that class so it's working for me I guess.	RECIPROCAL RELATIONSHIP: Competence satisfaction---> Autonomous motivation (positive relationship) - increased competence increases desire to attend class in order to further increase competence - decreased competence decreases dedication to attend class because feels as though attending class does not lead to greater competence - so, autonomously chooses to attend based on whether she feels class will meet need for competence satisfaction Autonomous motivation --> Competence satisfaction (positive relationship) - she feels that autonomously engaging in academic activities leads to greater competence in those courses CONCEPTUAL SIMILARITY - Views sense of competence and autonomous motivation to attend as "the same"; perhaps suggesting her motivation for autonomously attending university is entirely to satisfy her need for competence
Controlling Motivation / Autonomy Sat.	- my parents never said that I have to go to University ... I've never really felt any pressure from my friends or anyone saying, you gotta go to University, 'cause I have some friends that went to University and some friends that didn't. And it's just kind of always been my personal choice to get what I want, so that's why I do it. - because as a first year student there are a lot of classes you have to take	CONCEPTUAL SIMILARITY - presence of autonomy satisfaction discussed as absence of controlling motivation (e.g. personal choice to attend university because no social pressures); lack of autonomy satisfaction discussed as presence of controlling motivation (e.g. required courses so lack of choice)
Controlling Motivation / Competence Sat.	- I was a smart kid, well smart in high-school so I got higher marks so it was always, people asking me where are you going to school next year, not are you going to school next year and things like that... when people say where are you going to school next year, it's like if I were to say that I'm not they'd be disappointed and shocked and be like that's not who she is... Why isn't she going?	UNIDIRECTIONAL RELATIONSHIP Competence Satisfaction --> Controlling motivation (positive relationship) - competence satisfaction in high school may increase perceived societal pressure to attend university
Relationships Between Achievement Goal Theory Constructs and Outcomes		

Mastery- Approach Goals / Performance -Approach Goals	<ul style="list-style-type: none"> - I want to try to take in as much as I can because that makes it way easier to study for the exam - when we hear about all these people that they never go to their classes and stuff it's like you pay all this money to go these courses, so you might as well learn something from them. - the whole goal for coming [to university] was so that I could learn stuff, obviously carrying over into my classes my goal was to learn things, I never wanted to start going to University so that I could be better than everyone else, I just wanted to go to University so that I could learn what I needed to learn. - my main goal was just to pass the class because I always struggled with that so ... I have only missed one Geography lecture this year because he doesn't like post his slides or anything so I need to be there so that I can learn all the material - most people who go to University, their goal is to you know, learn stuff and succeed - I came to University with the goal of getting my degree. 	<p>CONCEPTUAL SIMILARITY Unclear distinction between goals:</p> <ul style="list-style-type: none"> - "take in as much as I can" could refer to learning as much material as possible (mastery goal) or being able to memorize material sufficient to obtain a high mark on the final exam (performance goal) - obtainment of mastery goal needed in order to obtain performance goal (e.g. must learn material to pass the class) - Unclear whether "getting degree" reflects mastery or performance goal as she does not indicate what obtaining a degree signifies to her (having obtained knowledge or being better than others or neither) - compares herself to others (performance goal) in regards to amount learned (mastery goal) or courses attended <p>OTHER COMMENTS: Can hold both goals simultaneously:</p> <ul style="list-style-type: none"> - performance goals at level of specific classes (i.e. do better than friend on test) but mastery goal at level of university attendance in general (i.e. to learn) - learn stuff and succeed
Mastery- Goals / Achie.	I need to be there so that I can learn all the material and stuff so and I'm sitting at high 60s in that class so it's working for me I guess	<p>UNIDIRECTIONAL RELATIONSHIP Mastery-approach Goal --> Academic Achievement (positive relationship)</p> <ul style="list-style-type: none"> - believes that understanding material will lead to high marks
Mastery- Goals / Well-being	- if I was completely sucking in University, I wouldn't have a very positive outlook on life.	<p>UNIDIRECTIONAL RELATIONSHIP Mastery-approach Goal -> Well-being (positive relationship)</p> <ul style="list-style-type: none"> - believes that not achieving mastery goals hinders well-being
Perf.-Goals / Dedication	- I have the goal to do well in my classes and if I dropped out then it would just be like giving up on my classes.	<p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - if she drops out, she can not obtain performance goals (do well in courses); no clear evidence that adopting performance goals increases dedication
Perf.-Goals / Achie.	I just want to do well in the classes I guess, and for some classes It's like I strive to be high 70s	<p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - Performance goals defined in terms of marks
Performance -Approach Goals / Well-being	<ul style="list-style-type: none"> - I just want to do well in the classes I guess, and for some classes It's like I strive to be high 70s and for some classes it's sometimes like if I don't fail them I'm happy with that mark. - if I was completely sucking in University, I wouldn't have a very positive outlook on life. 	<p>UNIDIRECTIONAL RELATIONSHIP Performance Goals -> Well-being (positive relationship)</p> <ul style="list-style-type: none"> - not obtaining a performance goal can hinder well-being - obtaining a performance goal can promote well-being - expectation that she may not obtain performance goal prevents her from setting performance goal in order to maintain well-being
Relationships Between Achievement Goal Theory and Self-Determination Theory Constructs		
Mastery- Approach Goals / Autonomous Motivation	<ul style="list-style-type: none"> - so that I can learn the stuff I need to know so that I can get my degree. - I want to try to take in as much as I can because that makes it way easier to study for the exam - I just wanted to go to University so that I could learn what I needed to learn. - I need to be there so that I can learn all the material 	<p>RECIPROCAL RELATIONSHIP Autonomous Motivation --> Mastery Goals (positive relationship)</p> <ul style="list-style-type: none"> - autonomous motivation to get degree or do well on an exam causes her to set mastery goals <p>Mastery Goal --> Autonomous Motivation (positive relationship)</p> <ul style="list-style-type: none"> - desire to achieve mastery goal "to learn" causes her to be autonomously motivated towards university <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - mastery goals are seen as important and freely chosen, therefore autonomously motivated to obtain
Mastery- Approach Goals / Controlling Mot.	<ul style="list-style-type: none"> - you pay all this money to go these courses, so you might as well learn something from them. - most people who go to University, their goal is to you know, learn stuff 	<p>UNIDIRECTIONAL RELATIONSHIP Controlling motivation --> Mastery goal (positive relationship)</p> <ul style="list-style-type: none"> - guilt from financial burden of university causes one to form mastery goals (e.g. learn the material while there) - belief that social norm is to want to learn at university causes her to set mastery goal (e.g. to learn)

Mastery-Goals / Aut. Sat.	I never really felt like they were connected at all, just like I've always felt that most people who go to University, their goal is to... learn stuff and succeed so that the freedom to be myself is just kind of separate.	NO RELATIONSHIP - Autonomy to be herself not related to mastery goals
Performance-Approach Goals / Autonomou s Mot.	- for my Geography class my main goal was just to pass the class ... so, and when it came time for the exam, I studied as hard as I could, I have only missed one... lecture this year... I need to be there so that I can learn all the material and stuff so and I'm sitting at high 60s in that class so it's working for me I guess.	RECIPROCAL RELATIONSHIP Autonomous Motivation --> Performance Goals (positive relationship) - being autonomously motivated improves ability to obtain performance goal Performance Goal --> Autonomous Motivation (positive relationship) - desire to achieve performance goal "pass the class" causes her to be autonomously motivated;
Perf. Goals / Autonomy Sat	I never really felt like they were connected at all, just like I've always felt that most people who go to University, their goal is to... succeed so that the freedom to be myself is just kind of separate.	NO RELATIONSHIP - Autonomy to be herself at university not related to setting or obtainment of performance goals
Performance-Approach Goals / Competence Satisfaction	- my main goal was just to pass the class because I always struggled with that - I've had goals to just do well in my classes and if I didn't feel like I was doing well in my classes then I would just feel like I was just completely incompetent - In most of my classes I haven't really hit the full 20% drop so that makes me feel like I'm doing pretty good and I am usually around where the class average is and I'm not failing any classes... I'm doing pretty good. So I am okay in my classes	RECIPROCAL RELATIONSHIP Competence Satisfaction --> Performance Goal (positive relationship) - set performance goals that feel competent to achieve (e.g. goal in class she struggles with is to pass; goals in other courses are to get 70's) Performance Goal -> Competence Satisfaction (positive relationship) - Achieving performance goals enhances competence satisfaction; not achieving performance goals leads to feelings of incompetence CONCEPTUAL SIMILARITY - achieving performance goals also seen as an indicator of competence

E-6. VARIABLE MATRIX FOR INTERVIEWEE A2

Explanations of Constructs as Experienced by Interviewee A2

Construct	Explanation	Comments
Intrinsic Motivation	<ul style="list-style-type: none"> - a lot of my classes that I've taken like I didn't really find them all that interesting. There's maybe been about two or three classes that I really actually like enjoyed a lot and I find if you like the class more, then you strive to do better in it, you are more motivated to do the reading and the homework - the classes that I've been interested in aren't so much in the degree that I'm working towards, they're other electives that I've taken that I've really liked, but they're all within the healthcare field ... and that's what I ultimately want to do so I think ... if I get into medicine or nursing or whatever I do, like I think I'll be interested in it a lot more once that happens - the information that I read is really interesting and I can like use it for the rest of my life, so... like I really enjoy that class - I took a class last year, it was about like health issues in our society and I thought that was really interesting because it's relevant ... like obesity that's going to like affect us for the rest of our lives and change our society and our health care programs - so, I think stuff that was more relevant to my life, I enjoyed a lot more - I'm in Kinesiology so some of the classes are - like, designing workout plans and training programs and stuff like that, and it's kind of interesting like the overall point of it, but some of the specific classes that I took, I didn't like as much - I find if I actually enjoy them and can apply the information to my own life that I'm more interested in it and I'm more willing to do the homework - I've taken a lot that I really, like I didn't enjoy them and it was just kind of, I dreaded going to class - like, I still went but I just didn't enjoy it as much as if it was something that I was actually interested in - the one class that I took last semester that I found really interesting is my highest mark in university so I think that kind of - like, I expected more from myself because I actually enjoyed reading the material. - I actually don't like studying at all - like I find it really hard to make myself like sit down and actually read my stuff - I'm taking them because I'm interested in them, not because other people said they're easy or they're good classes - I've taken Physics and stuff and I enjoyed that in high school - I get excited about school sometimes 	<p>KEYWORDS for intrinsic motivation present:</p> <ul style="list-style-type: none"> - really liked, enjoyed, interesting, get excited about school <p>KEYWORDS for intrinsic motivation not present:</p> <ul style="list-style-type: none"> - not interesting, didn't like, didn't enjoy, dreaded going <p>FOSTERED by:</p> <ul style="list-style-type: none"> - electives one chooses to take that are in the field she ultimately hopes to pursue (health field) - learning information that can be used throughout "the rest of life" or "applied" to one's own life - content that is subjectively relevant to society (i.e. health issues such as obesity) <p>HINDERED by:</p> <ul style="list-style-type: none"> - classes being too "specific" as compared to overview classes <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - believes intrinsic motivation (liking the class) leads to increased productivity; thus, is a strong form of motivation - intrinsic motivation very course-specific; appears to be highly intrinsically motivated toward health information in general but low intrinsic motivation toward specific courses and specific academic activities (i.e. studying vs. attending classes) <p>CONCLUDED "LEVEL": MODERATE</p>

Autonomous Motivation	<p>- going to class, I find I can't do as well if I don't go, like I learn better if I have - like if I'm listening to a lecture and I'm taking notes than if I'm just reading the information on my own at home so - and like it takes less time I think to learn the information if I actually go to class and pay attention, so I think it's better to do that than just try and like catch up and do stuff on my own</p> <p>- I'm paying out of my own pocket so it's important for me to make the most out of that</p> <p>- pushing myself to do the best that I can do</p> <p>- friends that had already went to university that were older than me they said like if you don't go to school right away, if you take a year off or something you won't go back, so, and I kind of thought about that and I don't know, like I don't know what I would have done with my life if I didn't go to school, so, I don't know, I think it's more so personal motivation than it is like outside external influences or social pressures</p> <p>- it's relevant and it's stuff - like obesity that's going to like affect us for the rest of our lives and change our society and our health care programs - so, I think stuff that was more relevant to my life</p> <p>- I just can't pull that information out of there if I don't really know what it means, and plus you can't really apply it in life if you just have it memorized and you can't, like, give an example or teach it to somebody else</p> <p>- trying to get into professional colleges, you're compared to like a ton of other people</p> <p>- In my first year university I didn't come to class as much as - I guess I missed quite a few classes and now I don't ... in my second year and after that, that when I actually went to class and like took notes and actively listened to what the prof was saying that my marks increased, like I felt like I understood the material better and it wasn't just like when it came time to study that I had to teach myself all the material, like I kind of remembered it. so yea, I think it was more from personal experience</p> <p>- I'm motivated because it's what I want to do, not what other people want me to do, like I guess other people might agree with what I want to do, but I don't know - like, I knew what I wanted to do before I got into university, so - I don't know, like I didn't kind of take whatever classes trying to find what I wanted to do like I knew what I wanted to do so I was motivated to achieve it</p> <p>- it took me a while to adjust like I didn't realize that you had to read all your textbooks and do all that</p> <p>- I've kind of learned from my mistakes in the first year and kind of like spent more time like actually reading all of the stuff that we cover, and like spending more time studying, like studying in advance, going to all my classes ... I put a lot more time into it</p> <p>- part of it is to get into a professional college ... you need good marks ... when I get into a profession college, I don't think I would put in any less effort even though you're already in so like usually you still have to maintain a certain average but you may not have to have like a 90, but I still think I would - I don't know, like I haven't been there and done that, so I don't know, like I still think I would even like, regardless of what I need for marks</p> <p>- I think it's just something that I've gotten use to so I don't know if I would - I don't know - like, if I don't do my personal best then I don't feel good about it, so I think that's probably more - I don't know, like marks are important, but I think that's also like equally important</p> <p>- a lot of it is because of like career, I guess too, like for girls, if you don't go to university or something there's not tons you can do</p> <p>- I think I'm more strongly motivated based on like the entire outcome ... I want - like, to go into medicine and be a doctor ... the end picture is what motivates me to get there</p> <p>- I think that I go to the classes because like I'm motivated to get to my end goal</p> <p>- I don't think I could reach my end goal unless I was dedicated to doing little things like going to class and those little steps that you need to do along the way - just what I found from past experience which I think is what has kind of changed how I've dedicated my time is just what I've learned from past experience so I think that motivates me to get towards my end goal.</p>	<p>KEYWORDS for autonomous motivation present:</p> <ul style="list-style-type: none"> - it's better to do that (go to class and pay attention) - it's important for me - pushing myself to do the best that I can do - I don't know what I would have done with my life if I didn't go to school - personal motivation - apply it in life - it's what I want to do - doing my personal best is equally as important as marks <p>FOSTERED by:</p> <ul style="list-style-type: none"> - belief that one learns better and more efficiently by attending lectures compared to catching up later - "paying out of my own pocket" - belief that university is necessary to achieve future life goals (e.g. become a doctor) - belief that one's area of study is relevant to society as well as one's life (e.g. health care) - belief that one will need to apply the information later in life - strong desire to attend a professional college (i.e. possession of clear life goals, in this case to be a doctor) - previous experience (after attending classes and noticing and improvement in marks and comprehension, viewed attendance as important and autonomous motivation increased) - previously high autonomous motivation ("it's just something that I've gotten use to") <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - desire to attend professional college is a very strong contributor to autonomous motivation; however, she does not feel that motivation will decrease after she has been accepted to medicine - high autonomous motivation appears to be persistent over the long-term <p>CONCLUDED "LEVEL": HIGH</p>
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Controlling Motivation	<ul style="list-style-type: none"> - I'm trying to get into medicine so I need to get pretty good grades. - my parents have always kind of pushed it throughout high school and stuff to like do your homework, study hard - I'm paying a lot of money to be here ... some people - I guess like they're parents or whatever are paying for them so - like, I'm paying out of my own pocket - I'm from a small town and a lot of the kids that I went to school with didn't go to university some went to colleges or like SIAST or something, but a lot of them took time off and most of them didn't go back to school. So, there was only a few of us who did so <u>I didn't really feel like out of my group of friends that - I don't know, that I was pressured to do that.</u> I don't know, I think I was kind of more pressured by family and people that I know I guess, like friends that had already went to university that were older than me they said like if you don't go to school right away, if you take a year off or something you won't go back - I guess like trying to get into a professional college, you have to be better than so many other people to get in - I don't think I could do as well in the class if I didn't go to class and actually attend the lectures so I guess that kind of is something that I have to do to be able to get good marks - a lot of other people I guess have expectations of me but ... <u>I'm doing what I'm doing for myself not to please anybody else so I don't know, I'm not afraid to really stand up for what I believe if my parents are telling me like "you should go into medicine" or whatever, like I'm not - I'm kind of changing it now so that I'm more okay to go into nursing or something else, just because it's hard to get into and like I - I don't know, I would be fine being a nurse too</u> - <u>I don't really take classes based on like feeling pressure to take them I guess, like</u> there's certain prerequisites I have to take and sometimes they're not the greatest classes, <u>but everybody in my degree has to take them</u> - <u>I'm taking them because I'm interested in them, not because other people said they're easy or they're good classes</u> - in high school when parents are telling you to do homework and stuff - that's what I'm I guess paying my tuition to do is to go to those classes - people do have expectations I guess, but, I don't know, like they don't really... motivate me - Well like I do have people telling me that but I don't really listen to it - like, I kind of make up my mind like what I want to do myself so I don't think it matters ... the more people that I have pushing toward that I guess it'd probably motivate me more - I'm doing it because I want to do it, not because other people want me to do it, so I'm making my own decisions so I'm kind of controlling the outcome more so than if someone else is pressuring me to do it ... it's more in my control I guess than leaving it up to other people 	<p>KEYWORDS for controlling motivation present:</p> <ul style="list-style-type: none"> - I need to get good grades - my parents have always kind of pushed it - paying a lot of money to be here - pressured by family and people I know - something I have to do - people have expectations of me - certain prerequisites one has to take <p>KEYWORDS for controlling motivation not present:</p> <ul style="list-style-type: none"> - I didn't feel pressured by my group of friends - I'm doing what I'm doing for myself, not to please anybody - I'm not afraid to stand up to my parents - I don't take classes based on feeling pressured to take them - I'm taking them because I'm interested in them - I'm making my own decisions - I'm controlling the outcome <p>FOSTERED by:</p> <ul style="list-style-type: none"> - desire to attend professional college (i.e. need for high grades, need to outperform others) - parents "pushing" to do homework, study etc. in high school - acknowledging that one is paying their tuition to attend courses - parents saying "you should go into medicine" - believing that if one does not attend university immediately after high school, one never will - belief one "has" to attend in order to get good grades - belief that others expect things from you (i.e. expect her to be a doctor) - prerequisite courses one "has to take" <p>HINDERED by:</p> <ul style="list-style-type: none"> - having many peers who do not attend university (e.g. attend trade school or did not attend any post-secondary) - having multiple options and a "black-up plan" (i.e. accepting that she will be happy to be a nurse if she does not get into medicine as she acknowledges it is difficult to get into medicine) - acknowledging she is not the only one to feel the control (i.e. everyone in her degree has to take the same prerequisites so these do not lead to a personal increase in controlling motivation) - self-acceptance of others' expectations (i.e. feels pressured and expected by others to do well in university, but also wants to do well and wants to become a doctor so does not interpret this pressure as controlling motivation) <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - appears to have low controlling motivation from outside forces (i.e. parental or societal pressure) but has high controlling motivation from within (feels she needs to attend and obtaining a degree is something she has to do) <p>CONCLUDED "LEVEL": MODERATE</p>
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<p>Mastery- Approach Goals</p>	<ul style="list-style-type: none"> - I learn better if ... I'm listening to a lecture and I'm taking notes than if I'm just reading the information on my own at home - to learn the information - pushing myself to do the best that I can do - <u>yea that's pretty much it, like I don't really set goals about going to class or anything because I go to all my classes</u> - I find if I actually understand it and can explain it in my own words or like teach it to someone else then I will remember it when it comes to an exam. - I just can't pull that information out of there if I don't really know what it means, and plus you can't really apply it in life if you just have it memorized and you can't, like, give an example or teach it to somebody else, like it's not really as useful - I try to do better than the class average, which I usually do but - it's not so much that I'm striving to do that, I think it's more so like a personal best but usually my personal best is above the class average, that's just kind of like a secondary thing - I always try and do my best - I'm basing [my goal of a certain mark] on what I think I can do. Um, like I don't have the same goal for every class like there's some classes that I might struggle with more so I'm like "if I can get above an 85, then that's good" but then there's other classes where I'm like, okay I should be able to get in the 90's for sure, I know this information and its interesting so - how I think that I should be able to do, like the amount of studying that I did, like how well I know the information - I mostly base [my goal mark] on like how I think I could do on that test or in the class - set my goals based on what I think I can do and if I don't achieve them then that's more disappointing - how I've done has improved since my first year university so like I can kind of see that I'm like getting better at it and I'm learning from my mistakes and trying to pick up on how I can actually do well because not everyone learns the same way - I try to strive to learn the material and understand how to do it - it's always nice to see when you improve. - if I don't do my personal best then I don't feel good about it - <u>it probably is more mark based, but like with saying that, I have to know the information well to get a good mark so it's kind of both but I think I focus more on the mark</u> - if I don't understand something I can't just stop thinking about it 	<p>KEYWORDS for setting mastery goals:</p> <ul style="list-style-type: none"> - to learn the information - to do the best that I can do - actually understand it - can explain it in my own words - teach it to someone else - remember it - my personal best - try to do my best - basing my goal on what I think I can do - strive to learn the material and understand how to do it - to improve <p>KEYWORDS for not setting mastery goals:</p> <ul style="list-style-type: none"> - don't set goals to go to class - I focus more on the mark <p>FOSTERED by:</p> <ul style="list-style-type: none"> - desire to apply knowledge later in life (i.e. be able to use information or teach it to someone else). - desire to do well on the test (i.e. comprehension, ability to explain it in own words, and remember it all contribute to doing well on a test) and obtain good marks - self-knowledge of what one can and can not obtain in a certain class (i.e. sets marks as goals based on what she feels is her personal best) - specific mastery goals set are based on previous experience (e.g. how she's improved throughout university career) - mastery goal for personal improvement fostered by previous improvement - belief that not doing her personal best will lead to ill well-being (e.g. I don't feel good about it) - strong desire to understand things - belief that obtainment of mastery goals will lead to improved marks (obtainment of performance goal) <p>HINDERED by:</p> <ul style="list-style-type: none"> - if already obtaining goal (i.e. already goes to all classes) then does not set this as a goal <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - discussion of types of goals closely related to obtainment of goals - unsure whether "to go to class" reflects underlying mastery goal (to acquire competence) or merely simple act of attending - mastery and performance goals highly conflated (i.e. to remember reflects mastery goal but if purpose is only to "do well" on test, then it reflects performance goal) <p>CONCLUDED "LEVEL": HIGH</p>
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Performance -Approach Goals	<ul style="list-style-type: none"> - to get good grades - you strive to do better in it - I still did good in most of the classes - when I'm studying for tests like I set a goal for about what I want to get on that test and when I'm doing homework, I set goals like I want to have these assignments done by this date or have these pages read by this date - I probably set goals about like my overall average too - its more so like marks and like getting my homework done - getting my homework done just because like I know it can pile up throughout the year so I try and like get it done when its suppose to be done and keep up with the reading. - give an example or teach it to somebody else - I try to do better than the class average ... I don't set goals to be like 10% above the class average or anything, it's just - I kind of like mark how I did based on how other people did too - I am kind of a competitive person but ... when someone else does their best, like I'm happy for them, like I don't - it doesn't really matter how they did compared to other people but - Yea, I guess like trying to get into a professional college, you have to be better than so many other people to get in, so, I think that's kind of what brought that upon. - some classes that I might struggle with more so I'm like "if I can get above an 85, then that's good" but then there's other classes where I'm like, okay I should be able to get in the 90's for sure, I know this information and its interesting - I usually look at how other people did after I find out my marks, like after I've already set my goals about what I want to do so that's just kind of something I look at after ... I'm not so much influenced by how other people do, like that's just something I kind of look at after, - I want to do good in my classes - sometimes I set goals like before I even like start the class, like I guess, before I've even met the prof or anything or even been to a lecture, and those are not necessary like goals I guess - they're just kind of like things - like, I want to get certain marks this year and I actually kind of like set the goals once I'm in the class and doing assignments and midterms and like figuring out how the prof grades and like what's expected of us - if I'm really having trouble with it, I kind of just like picture myself like everybody else, like kind of at class average, - my marks have been going up so that's like a strong motivation to keep doing what I'm doing and to strive to do better - it probably is more mark based ... I focus more on the mark 	<p>KEYWORDS for setting performance goals:</p> <ul style="list-style-type: none"> - to get good grades - strive to do better - to do good in my classes - set goals of what I want to get on a test - set goals about my overall average - marks - give an example - teach to someone else - to do better than the class average - I mark how I did based on how other people did - I focus more on the mark [than learning the information] <p>FOSTERED by:</p> <ul style="list-style-type: none"> - being a "competitive person" - desire to get into a professional college and being aware that one must be better than others to be accepted - actual goal set depends on the course and how confident she is in the course content as well as her interest in the course (e.g. if having trouble, goal is to meet class average; if not having trouble, goal is above class average) - previous obtainment of performance goals leads to the desire to set further performance goal <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - many more "process goals" (finish assignments by a certain date, get homework done, keep up with reading) unsure whether mastery or performance because don't know underlying reason for setting these goals - acknowledges that it is against social norm to express having strong performance goals (e.g. to do better than class average); makes point of saying that she is also happy when others do their best but still desires to be better than them - appears to set mastery goal based on own personal knowledge first, but also compares her mark to others once it is known - sets initial goals prior to class and adjusts these as she gains experience with course, material, professor, etc. <p>CONCLUDED "LEVEL": HIGH</p>
Autonomy Satisfaction	<ul style="list-style-type: none"> - other electives that I've taken - I think coming to a city, because I'm from a small town and then I lived in residence so somebody's always doing something - I don't really take classes based on like feeling pressure to take them I guess, like <u>there's certain prerequisites I have to take and sometimes they're not the greatest classes, but everybody in my degree has to take them so I just make the best of it and do my best in them</u> - as for electives and stuff I choose what I'm interested in I don't necessarily take the easy route - I'm taking them because I'm interested in them, not because other people said they're easy or they're good classes - I took Anthropology my first year because somebody told me it would be easy and interesting and I didn't like it so I stopped taking classes that other people told me would be good classes because I knew beforehand that I wasn't interested in that stuff - I usually base my goals on what I think I can do, not... - so I guess that's like my freedom ... that's my choice that I want to do good so I think, yea like it is motivated by my freedom of choice - I kind of make up my mind like what I want to do myself - I'm doing it because I want to do it, not because other people want me to do it, so I'm making my own decisions so I'm kind of controlling the outcome more so than if someone else is pressuring me to do it. So, like, when I'm controlling the outcome I can control, like to a degree like if I'm going to get a good outcome out of it. Like, it's more in my control I guess than leaving it up to other people, so I guess - and then when you do get a positive experience out of it it feels better than if like somebody else kind of controlled it. 	<p>KEYWORDS for high autonomy satisfaction:</p> <ul style="list-style-type: none"> - electives - I don't really take classes based on like feeling pressure - I choose what I'm interested in - I didn't like it so I stopped taking classes that other people told me would be good classes - my freedom of choice - make up my mind like what I want to do myself - because I want to do it, not because other people want me to - I'm making my own decisions - I'm controlling the outcome <p>KEYWORDS for low autonomy satisfaction:</p> <ul style="list-style-type: none"> - certain prerequisites I have to take <p>FOSTERED by:</p> <ul style="list-style-type: none"> - moving to the city from small town: "somebody's always doing something" - understanding that required courses apply to "everybody in my degree" and thus not feeling personally pressured to take them - feeling free to not abide by the advice of others - strong desire for control over her life and autonomy from others <p>HINDERED by:</p> <ul style="list-style-type: none"> - course requirements <p>CONCLUDED "LEVEL": HIGH</p>

Competence Satisfaction	<ul style="list-style-type: none"> - I think I have the ability to get good grades - I'm taking a nutrition class right now and like it's a lot of work and it's not an easy class - I still did good in most of the classes - sometimes you think you did really good but you didn't - I'm not very good at memorizing information, I've taken classes where - like anatomy, where it's mostly memorization and I don't do good at those types of classes - I try to do better than the class average, which I usually do but some classes that I might struggle with more - then there's other classes where I'm like, okay I should be able to get in the 90's for sure - sometimes you think you did better than you did too - what I think I'm capable of - I typically get pretty good marks in my classes, so I don't know, like I guess that shows that I'm able to do well ... not necessarily marks, but just how like how I've felt about how I've done has improved since my first year university so like I can kind of see that I'm like getting better - I think I'm able to do well if I apply myself - I know that I am capable of it, I just have to - like, everybody's not good at everything - there's classes that I have a lot of trouble with - after I write a test I'm like "okay I think I got like between 90 and 100 or something on it", and like it's not always that - sometimes I do a lot better than I thought and sometimes I do worse - I am competent and have the ability to get a degree and do whatever I want as a career. I don't think I'm limited in any way - like if I - I don't want to sound cocky or anything but I think that if I want to be a doctor or lawyer or whatever I want to be, like I think if I put my mind to it I could do it 	<p>KEYWORDS for high competence satisfaction:</p> <ul style="list-style-type: none"> - I have the ability to get good grades - I did good in most classes - Usually do better than class average - I should be able to get in the 90's for sure - I typically get good marks in my classes - I'm able to do well - how I've felt about how I've done has improved - I know that I am capable of it - I am competent - I have the ability to get a degree and do whatever I want as a career - I don't think I'm limited in any way <p>KEYWORDS for low competence satisfaction:</p> <ul style="list-style-type: none"> - it's a lot of work and not an easy class - sometimes you think you did really good but didn't - I'm not very good at memorizing - some classes I might struggle with - classes I have a lot of trouble with <p>FOSTERED by:</p> <ul style="list-style-type: none"> - previous demonstrations of competence (doing well in most classes) - improvement throughout university career - believing that one has "applied" one's self or "put my mind to it" <p>HINDERED by:</p> <ul style="list-style-type: none"> - specific way of learning (e.g. having to rely on memorizing) - not "doing well" when expecting to <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - context specific depending on the course - activity specific (i.e. doesn't feel competent to memorize information but feels competent to learn in other ways) - uses marks to define competence as well as "how I've felt about how I've done" - aware that expressing high competence is against social norm: "don't want to sound cocky" <p>CONCLUDED "LEVEL": HIGH</p>
Academic Dedication	<ul style="list-style-type: none"> - I'm trying to get into medicine - I finish my degree at the end of this term, but I'll be coming back ... I'm not ready to be out in the world with a career yet, but I <u>don't want to be in school for ever either</u> - if I get into medicine or nursing or whatever I do - trying to get into professional colleges - I'm kind of changing it now so that I'm more okay to go into nursing or something else, just because it's hard to get into ... I would be fine being a nurse too 	<p>KEYWORDS for high dedication:</p> <ul style="list-style-type: none"> - trying to get into medicine, I'll be coming back after I finish my degree, trying to get into a professional college <p>FOSTERED by:</p> <ul style="list-style-type: none"> - desire for a professional career (medicine or nursing) - belief that one is not ready to be "out in the real world with a career" yet <p>HINDERED by:</p> <ul style="list-style-type: none"> - desire to "not be in school forever" (hinders long-term deviation but may foster short term dedication to complete courses) <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - dedication not necessarily career specific at this point as she is accepting of becoming a doctor or a nurse <p>CONCLUDED "LEVEL": HIGH</p>
Academic Achievement	<ul style="list-style-type: none"> - what I want to get on that test - my overall average - I try to do better than the class average, which I usually do - as I've progressed throughout the years, like I - my marks have been going up 	<p>KEYWORDS for high achievement:</p> <ul style="list-style-type: none"> - I usually do better than the class average - marks have been going up <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - uses grades and class average to define achievement <p>CONCLUDED "LEVEL": HIGH</p>

Well-being	<ul style="list-style-type: none"> - I dreaded going to class - if I don't achieve what I think I can do, like my personal best it's disappointing - it's not, like it's not as disappointing if I don't do what other people want me to do or if I don't like do better than the rest of the class, it's not as disappointing as if I don't do what I think I can personally do. - I just make the best of it - it is kind of disappointing when you do worse than you expected but it's nice when you do better than you expected too - it would make me more stressed out and whatnot rather than like excited to be working towards it. 	<p>KEYWORDS for high wellbeing:</p> <ul style="list-style-type: none"> - it's nice, make the best of it, excited <p>KEYWORDS for low wellbeing:</p> <ul style="list-style-type: none"> - dreaded going to class, disappointing, stressed out <p>FOSTERED by:</p> <ul style="list-style-type: none"> - doing better than expected <p>HINDERED by:</p> <ul style="list-style-type: none"> - attending classes for which she is not motivated - not achieving mastery goals <p>CONCLUDED "LEVEL": MODERATE</p>
Relationships Between Constructs as Experienced by Interviewee A2		
NO DATA for the following relationships: Autonomy Satisfaction / Academic Achievement Mastery-Approach Goals / Academic Dedication		
Relationships Between Outcome Variables and Motivation Types		
Intrinsic Motivation / Academic Dedication	<ul style="list-style-type: none"> - the classes that I like are related to health - So, and that's what I ultimately want to do - if I get into medicine or nursing or whatever I do ... I think I'll be interested in it a lot more once that happens - I want to do something I enjoy ... I've always wanted to do something in the health care field and for most of that, like you have to go to university 	<p>RECIPROCAL RELATIONSHIP Intrinsic Motivation --> Dedication (positive relationship)</p> <ul style="list-style-type: none"> - desire for future intrinsic motivation is related to increased dedication to complete degree: "I want to do something I enjoy ... for most of that ... you have to go to university" <p>Dedication -> Intrinsic Motivation (positive relationship)</p> <ul style="list-style-type: none"> - believes that intrinsic motivation will increase once she is enrolled in courses more directly related to the field she is dedicated to
Autonomous Motivation / Academic Dedication	<ul style="list-style-type: none"> - I'm doing what I'm doing for myself not to please anybody else ... I'm not afraid to really stand up for what I believe if my parents are telling me like "you should go into medicine" ... I'm kind of changing it now so that I'm more okay to go into nursing or something else, just because it's hard to get into ... I would be fine being a nurse too - a lot of it is because of like career, I guess too, like for girls, if you don't go to university or something there's not tons you can do - I've always wanted to do something in the health care field and for most of that, like you have to go to university - I don't think I could reach my end goal unless I was dedicated to doing little things like going to class and those little steps that you need to do along the way - just what I found from past experience which I think is what has kind of changed how I've dedicated my time is just what I've learned from past experience so I think that motivates me to get towards my end goal. 	<p>RECIPROCAL RELATIONSHIP Autonomous Motivation --> Dedication (positive relationship)</p> <ul style="list-style-type: none"> - high autonomous motivation is related to increased dedication toward programs one chooses to complete (nursing) and decreased dedication toward programs she feels forced to complete (medicine): "I'm not afraid to really stand up for what I believe if my parents are telling me like "you should go into medicine" ... I'm kind of changing it now so that I'm more okay to go into nursing" <p>Dedication -> Autonomous Motivation (positive relationship)</p> <ul style="list-style-type: none"> - high dedication toward obtaining a degree is related to increased autonomous motivation to engage in academic activities if one believes "if you don't go to university or something there's not tons you can do"; "I've always wanted to do something in the health care field and for most of that, like you have to go to university" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - dedicated to engaging in academic activities is conceptually similar to autonomous motivation: "I was dedicated to doing little things like going to class ... past experience ... changed how I've dedicated my ... that motivates me to get towards my end goal."

Controlling Motivation / Academic Dedication	<ul style="list-style-type: none"> - I'm trying to get into medicine so I need to get pretty good grades. - I'm doing what I'm doing for myself not to please anybody else ... I'm not afraid to really stand up for what I believe if my parents are telling me like "you should go into medicine" ... I'm kind of changing it now so that I'm more okay to go into nursing ... because it's hard to get into and ... I would be fine being a nurse too - probably not [a relationship between not feeling socially pressured and high dedication] people do have expectations I guess, but ... they don't really... motivate me ... I do have people telling me that [I have to be a doctor] but I don't really listen to it ... I kind of make up my mind like what I want to do myself so ... the more people that I have pushing toward that I guess it'd probably motivate me more, but I think it would motivate me for the wrong reasons 	<p>RECIPROCAL RELATIONSHIP Controlling Motivation --> Dedication (positive and negative relationship, conditional)</p> <ul style="list-style-type: none"> - high controlling motivation is related to high dedication toward a specific program (medicine) while low controlling motivation is related to dedication toward a different program (nursing) <p>MEDIATED by variable: autonomous motivation, autonomy satisfaction: "I'm doing what I'm doing for myself not to please anybody else ... I'm not afraid to really stand up for what I believe if my parents are telling me like "you should go into medicine" ... I'm kind of changing it now so that I'm more okay to go into nursing"</p> <p>Dedication -> Controlling Motivation (positive relationship)</p> <ul style="list-style-type: none"> - dedication toward a certain profession (medicine) is related to increased controlling motivation (I need to get good grades) <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - student is currently undecided as to which program she will pursue (medicine or nursing) but experiences autonomy satisfaction and autonomous motivation to make the choice herself despite high social pressure to pursue medicine
Intrinsic Motivation / Academic Achievement	<ul style="list-style-type: none"> - the one class that I took last semester that I found really interesting is my highest mark in university so I think ... I expected more from myself because I actually enjoyed reading the material. - if ... I'm probably not going to enjoy it and it's going to be harder to like apply myself and get the marks that I want to if I don't enjoy something ... I guess if I don't enjoy it and I'm not going to do good at the class I find that it is harder to motivate myself to do the homework and the studying and whatnot, rather than if I enjoy the class. 	<p>UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Achievement (positive relationship)</p> <ul style="list-style-type: none"> - high intrinsic motivation is related to increased achievement: "one class ... I found really interesting is my highest mark... I expected more from myself because I actually enjoyed reading the material" <p>MEDIATED by performance goal: "I expected more from myself"</p> <ul style="list-style-type: none"> - low intrinsic motivation is related to decreased achievement: "[if I'm] not going to enjoy [a course] it's going to be harder to like apply myself and get the marks that I want" <p>MEDIATED by autonomous motivation: "harder to apply myself"</p>
Autonomous Motivation / Academic Achievement	<ul style="list-style-type: none"> - when I actually went to class and like took notes and actively listened to what the prof was saying that my marks increased ... I learned that I can do better and ... get better marks by doing that. - the [courses] that I'm like having trouble with and I know it's going to be like a struggle to get a good mark then I think that I spend more time trying to learn that material - it's going to be harder to like apply myself and get the marks that I want to if I don't enjoy something - The amount of time that I put into doing all the homework and studying [is a primary contributor to my grades] just like what I've noticed from my experience in my first year ... it took me a while to adjust like I didn't realize that you had to read all your textbooks and do all that - spent more time like actually reading all of the stuff that we cover, and ... spending more time studying, like studying in advance, going to all my classes ... I put a lot more time into it so I think that's what has made my marks go up. - as I've progressed throughout the years ... my marks have been going up so that's like a strong motivation to keep doing what I'm doing and to strive to do better, it's always nice to see when you improve - marks are important 	<p>RECIPROCAL RELATIONSHIP Autonomous Motivation --> Achievement (positive relationship)</p> <ul style="list-style-type: none"> - autonomous motivation is related to increased achievement: "when I actually went to class and like took notes and actively listened to what the prof was saying that my marks increased"; "spent more time... reading ... studying in advance, going to all my classes ...so I think that's what has made my marks go up." - low autonomous motivation (not applying one's self) is related to lower achievement (not getting the marks one wants) <p>Achievement -> Autonomous Motivation (positive relationship)</p> <ul style="list-style-type: none"> - desire for high achievement is related to increased autonomous motivation, especially when one believes they will have low achievement in a certain class: "the [courses] that I'm like having trouble with and I know it's going to be like a struggle to get a good mark then I think that I spend more time trying to learn that material" - obtaining high achievement is related to increased autonomous motivation: "as I've progressed throughout the years ... my marks have been going up so that's like a strong motivation to keep doing what I'm doing" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - "marks are important"
Controlling Motivation / Academic Achievement	<ul style="list-style-type: none"> - I don't think I could do as well in the class if I didn't go to class and actually attend the lectures so I guess that kind of is something that I have to do to be able to get good marks - to get into a professional college ... you need good marks 	<p>UNIDIRECTIONAL RELATIONSHIP Achievement -> Controlling Motivation (positive relationship)</p> <ul style="list-style-type: none"> - desire to obtain high achievement is related to increased controlling motivation: "something that I have to do to be able to get good marks"; "you need good marks" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - feels pressured to obtain high marks but no clear differentiation between variables

Intrinsic Mot. / Well-being	<ul style="list-style-type: none"> - I didn't enjoy them and it was just kind of, I dreaded going to class - like, I still went but I just didn't enjoy it 	UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Wellbeing (positive relationship) - low intrinsic motivation (didn't enjoy them) is related to decreased well-being (dreaded going)
Autonomous Mot. / Well-being	<ul style="list-style-type: none"> - I think it's just something that I've gotten use to so I don't know if I would ... if I don't do my personal best then I don't feel good about it, so I think that's probably more ... like marks are important, but I think that's also like equally important. 	CONTEXTUAL RELATIONSHIP - autonomously motivated to do her best and experiences low well-being if she does not do her best, but no clear evidence of a direct relationship between autonomous motivation well-being (autonomous motivation may mediate mastery goal-well-being relationship)
Controlling Motivation / Well-being	<ul style="list-style-type: none"> - there's certain prerequisites I have to take and sometimes they're not the greatest classes, but everybody in my degree has to take them so I just make the best of it - Well like I do have people telling me [to be a doctor] but I don't really listen to it ... I kind of make up my mind like what I want to do myself ... I guess ... the more people that I have pushing toward that I guess it'd probably motivate me more, but I think it would motivate me for the wrong reasons, like I think it would make me more stressed out and whatnot rather than like excited to be working towards it - I'm doing it because I want to do it, not because other people want me to do it, so I'm making my own decisions so I'm kind of controlling the outcome more so than if someone else is pressuring me to do it ... when I'm controlling the outcome I can control ... if I'm going to get a good outcome out of it ... then when you do get a positive experience out of it it feels better than if like somebody else kind of controlled it. 	UNIDIRECTIONAL RELATIONSHIP Controlling Motivation --> Wellbeing (negative relationship) - absence of controlling motivation (I made up my mind what I want to do for myself; I'm doing it because I want to do it not because others want me to) is related to positive wellbeing (excited to be working toward it, good outcome, positive experience, feels better) and presence of controlling motivation (people pushing me toward it; pressuring me to do it) is expected to relate to poor wellbeing (stressed out) MEDIATED by variable: autonomy satisfaction resulting from lack of controlling motivation leads to increased wellbeing as she feels she has more control over the outcome OTHER COMMENTS: - controlling motivation (prerequisites she has to take) does not lead to poor wellbeing if she feels the pressure is not on her personally: "everybody in my degree has to ... so I just make the best of it"
Relationships Between Outcome Variables and Needs Satisfaction		
Autonomy Satisfaction/ Academic Dedication	<ul style="list-style-type: none"> - I think it'd kind of be a waste if I didn't go to university because, I think I am competent and have the ability to get a degree and do whatever I want as a career ... if I want to be a doctor or lawyer or whatever I want to be, like I think if I put my mind to it I could do it - I do have people telling me that [I have to be a doctor] but I don't really listen to it ... I kind of make up my mind like what I want to do myself so I don't think it matters ... I guess if I - the more people that I have pushing toward that I guess it'd probably motivate me more, but I think it would motivate me for the wrong reasons, like I think it would make me more stressed out and whatnot rather than like excited to be working towards it 	CONTEXTUAL RELATIONSHIP - experiences high dedication to complete a degree and high autonomy satisfaction to choose the field in which to complete her degree but no clear evidence that the two variables influence each other
Competence Satisfaction / Academic Dedication	<ul style="list-style-type: none"> - I think it'd kind of be a waste if I didn't go to university because, I think I am competent and have the ability to get a degree ... I don't think I'm limited in any way ... I don't want to sound cocky or anything but I think that if I want to be a doctor or lawyer or whatever I want to be, like I think if I put my mind to it I could do it - I just think that I'm competent so might as well do all that I can do, like I might as well - if I want to be a doctor, I might as well do that rather than just be like a lab tech or something 	UNIDIRECTIONAL RELATIONSHIP Competence Satisfaction --> Dedication (positive relationship) - high competence satisfaction is related to high dedication to pursue a prestigious degree: "I'm competent so might as well do all that I can do, like I might as well - if I want to be a doctor, I might as well do that rather than just be like a lab tech"; "I think it'd kind of be a waste if I didn't go to university because, I think I am competent and have the ability to get a degree"

Competence Satisfaction / Academic Achievement	<ul style="list-style-type: none"> - because sometimes you think you did really good but you didn't, but usually it shows the amount of effort that you put into something - I typically get pretty good marks in my classes ... I guess that shows that I'm able to do well ... not necessarily marks, but just how like how I've felt about how I've done has improved - the [courses] that I'm like having trouble with and I know it's going to be like a struggle to get a good mark then I think that I spend more time trying to learn that material - if I don't feel like I'm going to do very good at the class ... it's going to be harder to like apply myself and get the marks that I want to - For the most part [my sense of competence and actual grades are] not always [related] usually after I write a test I'm like "okay I think I got like between 90 and 100 or something on it" ... it's not always that - sometimes I do a lot better than I thought and sometimes I do worse - the mark ... it's suppose to .. be a representation of how well you know your stuff. Not always, like sometimes you think you know it better, you just didn't do good on the test 	<p>RECIPROCAL RELATIONSHIP Competence Satisfaction --> Achievement (positive relationship, highly conditional)</p> <ul style="list-style-type: none"> - low competence satisfaction is expected to relate to low achievement ("the [courses] that I'm like having trouble with ... I know it's going to be like a struggle to get a good mark"; "if I don't feel like I'm going to do very good at the class ... it's going to be harder to like apply myself and get the marks that I want to") and high competence satisfaction is expected to relate to high achievement - but, highly MEDIATED by autonomous motivation: competence satisfaction (thinking you "did really good") is not always related to achievement: marks haven't improved, but how she feels about 'how she's done' has improved, doesn't feel grades always reflect her competence in the subject; BUT achievement is often related to autonomous motivation (the effort that you put in); low competence satisfaction causes one to "spend more time" or "study more" which leads to increased achievement <p>Achievement -> Competence Satisfaction (positive relationship)</p> <ul style="list-style-type: none"> - high subjective achievement is related to increased competence satisfaction: "I typically get pretty good marks in my classes ... I guess that shows that I'm able to do well"
Autonomy Satisfaction / Well-being	<ul style="list-style-type: none"> - I do have people telling me [to be a doctor] but I don't really listen to it ... I kind of make up my mind like what I want to do myself ... I guess if I - the more people that I have pushing toward that ... it would motivate me for the wrong reasons, like I think it would make me more stressed out ... rather than like excited to be working towards it - Yea [not feeling pressured is related to my life satisfaction and happiness] because I'm doing it because I want to do it ... so I'm making my own decisions so I'm kind of controlling the outcome more so than if someone else is pressuring me ... when I'm controlling the outcome I can control ... if I'm going to get a good outcome out of it ... it's more in my control ... than leaving it up to other people ... then when you do get a positive experience out of it it feels better than if like somebody else kind of controlled it ... Yes [it makes me happy to have control over my life] 	<p>UNIDIRECTIONAL RELATIONSHIP Autonomy Satisfaction --> Wellbeing (positive relationship)</p> <ul style="list-style-type: none"> - low autonomy satisfaction (people pushing me toward medicine) is related to low well-being (would make me more stressed) - high autonomy satisfaction is related to high well-being: "excited to be working toward it"; "I'm making my own decisions so I'm kind of controlling the outcome ... I can control ... if I'm going to get a good outcome out of it ... then when you do get a positive experience out of it it feels better"
Competence Satisfaction/ Well-being	<ul style="list-style-type: none"> - sometimes you think you did better than you did too, so that can be disappointing - it's more of what I expect from myself, like if I don't achieve what I think I can do, like my personal best it's disappointing - it's not as disappointing if I don't do what other people want me to do or if I don't like do better than the rest of the class, it's not as disappointing as if I don't do what I think I can personally do. - it is kind of disappointing when you do worse than you expected but it's nice when you do better than you expected too 	<p>UNIDIRECTIONAL RELATIONSHIP Competence Satisfaction -> Wellbeing (positive relationship, conditional)</p> <ul style="list-style-type: none"> - low competence satisfaction is related to low well-being, especially when one previously experienced high competence satisfaction - high competence satisfaction is related to increased well-being: "it is kind of disappointing when you do worse than you expected but it's nice when you do better than you expected"
Relationships Between Motivation Types and Needs Satisfaction		
Intrinsic Motivation / Autonomous Motivation	<ul style="list-style-type: none"> - the information that I read is really interesting and I can like use it for the rest of my life, so... like I really enjoy that class - I thought that was really interesting because it's relevant and it's stuff - like obesity that's going to like affect us for the rest of our lives and change our society and our health care programs - so, I think stuff that was more relevant to my life, I enjoyed a lot more - I find if I actually enjoy them and can apply the information to my own life that I'm more interested in it and I'm more willing to do the homework - it's going to be harder to like apply myself ... if I don't enjoy something, ... if I don't enjoy it ... I find that it is harder to motivate myself to do the homework and the studying and whatnot, rather than if I enjoy the class - if I enjoy the class, I'll probably spend ... I would like to spend more time on it but then if in the same semester I'm taking classes that I struggle with, like I probably have to spend more time on those classes than the ones that I enjoy 	<p>RECIPROCAL RELATIONSHIP Intrinsic Motivation --> Autonomous Motivation (positive relationship)</p> <ul style="list-style-type: none"> - decreased intrinsic motivation is related to decreased autonomous motivation: "it's going to be harder to ... apply myself ... if I don't enjoy something, ... if I don't enjoy it ... I find that it is harder to motivate myself to do the homework and the studying" - increased intrinsic motivation (enjoyment and interest in course) is related to increased autonomous motivation (willingness to do homework): "if I enjoy the class, I'll probably spend ... I would like to spend more time on it" - MEDIATED by competence satisfaction: "if in the same semester I'm taking classes that I struggle with ... I probably have to spend more time on those classes than the ones that I enjoy" <p>Autonomous Motivation -> Intrinsic Motivation (positive relationship)</p> <ul style="list-style-type: none"> - autonomous motivation toward a course (belief that the content is relevant/applicable to one's life, career, and society) is related to increased motivation (more interest in content and enjoyment of learning)

<p>Intrinsic Mot. / Controlling Mot.</p>	<ul style="list-style-type: none"> - I'm taking them because I'm interested in them, not because other people said they're easy or they're good classes - I took Anthropology my first year because somebody told me it would be easy and interesting and I didn't like it so I stopped taking classes that other people told me would be good classes because I knew beforehand that I wasn't interested in that stuff 	<p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - experiences high intrinsic and low controlling motivation in the same context but no evidence that these variables influence each other (takes classes she enjoys but not those others tell her to take) - after having taken a class she did not enjoy because it was recommended by others, intrinsic motivation now has more influence on her behaviour than controlling motivation
<p>Autonomous Motivation / Controlling Motivation</p>	<ul style="list-style-type: none"> - my parents have always ... pushed it throughout high school .. to like do your homework, study hard, get good grades so that kind of just stuck with me even though university. I don't have them telling me "like okay, you need to get your homework done" anymore ... it was always just expected so now I just kind of continue with it - I'm paying a lot of money to be ... I'm paying out of my own pocket so it's important for me to make the most out of that - pushing myself to do the best that I can do - I was ... more pressured by family and people that I know ... like friends that had already went to university that were older than me they said ... if you don't go to school right away, if you take a year off or something you won't go back ... I kind of thought about that and ... I don't know what I would have done with my life if I didn't go to school, so, ... I think it's more so personal motivation than it is like outside external influences or social pressures - a lot of other people ... have expectations of me but ... I'm doing what I'm doing for myself not to please anybody else ... I'm not afraid to really stand up for what I believe if my parents are telling me like "you should go into medicine" ... I'm kind of changing it now so that I'm more okay to go into nursing ... because it's hard to get into [medicine] and ... I would be fine being a nurse too - in high school when parents are telling [me] to do homework ... I don't think I would have those goals on my own to like get my stuff done, just because I don't have someone telling me what to do ... to like motivate myself to actually get it done - I'm motivated because it's what I want to do, not what other people want me to do, like I guess other people might agree with what I want to do, but ... I knew what I wanted to do before I got into university, so ... I knew what I wanted to do so I was motivated to achieve it - to get into a professional college ... you need good marks but then I was also thinking about that ... when I get into a professional college, I don't think I would put in any less effort even though you're already in ... usually you still have to maintain a certain average but you may not have to have like a 90, but I still think I would ... I haven't been there and done that, so I don't know ... I still think I would ... regardless of what I need for mark 	<p>RECIPROCAL RELATIONSHIP</p> <p>Autonomous Motivation --> Controlling Motivation (negative relationship)</p> <ul style="list-style-type: none"> - high autonomous motivation toward a specific program can lead to reduced controlling motivation toward other programs: "I'm not afraid to really stand up for what I believe if my parents are telling me like "you should go into medicine" ... I'm ... changing it now so that I'm more okay to go into nursing ... I would be fine being a nurse too" <p>Controlling Motivation -> Autonomous Motivation (positive relationship)</p> <ul style="list-style-type: none"> - controlling motivation is related to increased autonomous motivation: "[parental pressure] just stuck with me even though university... it was always just expected so now I just kind of continue with it"; "I'm paying out of my own pocket so it's important for me to make the most out of that"; "I was ... more pressured ... friends that had already went to university ... they said ... if you don't go to school right away ... you won't go back ... I kind of thought about that and ... I don't know what I would have done with my life if I didn't go to school, so, ... I think it's more so personal motivation than it is like outside external influences or social pressures"; "in high school when parents are telling [me] to do homework ... I don't think I would have those goals on my own [but now] I don't have someone telling me what to do ... to like motivate myself to actually get it done"; "to get into a professional college ... you need good marks but ... when I get into a professional college, I don't think I would put in any less effort regardless of what I need for mark" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - controlling motivation that comes from one's self is conceptually similar to strong autonomous motivation: "pushing myself to do the best that I can do" <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - she experiences controlling and autonomous motivation toward the same outcome, but chooses to experience this as autonomous motivation rather than controlling: "I'm motivated because it's what I want to do, not what other people want me to do ... I guess other people might agree with what I want to do"

Intrinsic Motivation / Autonomy Satisfaction	<ul style="list-style-type: none"> - the classes that I've been interested in aren't so much in the degree that I'm working towards, they're other electives that I've taken that I've really liked, but they're all within the healthcare field - as for electives and stuff I choose what I'm interested in I don't necessarily take the easy route - I'm taking them because I'm interested in them, not because other people said they're easy or they're good classes - I took Anthropology my first year because somebody told me it would be easy and interesting and I didn't like it so I stopped taking classes that other people told me would be good classes because I knew beforehand that I wasn't interested 	<p>UNIDIRECTIONAL RELATIONSHIP Autonomy Satisfaction -> Intrinsic Motivation (positive relationship)</p> <ul style="list-style-type: none"> - autonomy satisfaction (ability to choose classes) allows her to enrol in courses she is intrinsically motivated toward (interested in) - low autonomy satisfaction (taking courses because others tell her too or because they are required for her degree) can result in decreased intrinsic motivation if she is not interested in and does not enjoy these classes <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - not mediated by competence satisfaction ("I choose what I'm interested in I don't necessarily take the easy route") or controlling motivation ("I'm taking them because I'm interested in them, not because other people said they're easy or they're good classes")
Intrinsic Motivation / Competence Satisfaction	<ul style="list-style-type: none"> - it's a lot of work and it's not an easy class but the information that I read is really interesting and I can like use it for the rest of my life, so ... I really enjoy that class - some of the specific classes ... I didn't like as much - but ... I still do pretty good in them, it's just I find if I actually enjoy them and can apply the information to my own life that I'm more interested in it - I still did good in most of the classes even if I didn't enjoy them - the one class that I took last semester that I found really interesting is my highest mark in university ... I expected more from myself because I actually enjoyed reading the material. - if I enjoyed the class I could probably do better in it - I've taken Physics and stuff and I enjoyed that in high school but I struggled with it, like it wasn't my strong subject - if I enjoy something then I understand it better and I feel like I can do better in the classes - if I don't feel like I'm going to do very good at the class then I'm probably not going to enjoy it and it's going to be harder to ... apply myself and get the marks that I want to if I don't enjoy something 	<p>RECIPROCAL RELATIONSHIP</p> <p>Intrinsic Motivation -> Competence Satisfaction (positive relationship, conditional)</p> <ul style="list-style-type: none"> - high intrinsic motivation is related to higher competence satisfaction: "[the class] I found really interesting is my highest mark in university ... I expected more from myself because I actually enjoyed reading the material"; "if I enjoyed the class I could probably do better in it" <p>MEDIATED by mastery goals: "if I enjoy something then I understand it better and I feel like I can do better in the classes"</p> <p>Competence Satisfaction -> Intrinsic Motivation (positive relationship)</p> <ul style="list-style-type: none"> - low competence satisfaction is related to decreased intrinsic motivation: "if I don't feel like I'm going to do very good at the class then I'm probably not going to enjoy it" <p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - low competence satisfaction and high intrinsic motivation can co-exist within the same course: "I enjoyed [physics] in high school but I struggled with it"; "it's a lot of work and it's not an easy class but ... I really enjoy that class" - low intrinsic motivation and high competence satisfaction can co-exist within the same course: "I still did good in most of the classes even if I didn't enjoy them"
Autonomous Motivation / Autonomy Satisfaction	<ul style="list-style-type: none"> - I'm motivated because it's what I want to do, not what other people want me to do ... people might agree with what I want to do ... I knew what I wanted to do before I got into university ... I didn't kind of take whatever classes trying to find what I wanted to do ... I knew what I wanted to do so I was motivated to achieve it - the reason why I study and do all my homework and like how I like try and organize it so I actually get it done is because I want to do good in my classes - so, but that's my choice that I want to do good so I think, yea like it is motivated by my freedom of choice - I think I'm able to do well if I apply myself, like if I don't go to class and don't do my homework then I'm not going to do well. So I think it's just the choices that I make that allow me to do well - I'm doing it because I want to do it ... I'm making my own decisions 	<p>UNIDIRECTIONAL RELATIONSHIP Autonomy Satisfaction -> Autonomous Motivation (positive relationship)</p> <ul style="list-style-type: none"> - high autonomy satisfaction (choosing one's degree program and goals) is related to high autonomous motivation to engage in academic activities: "I'm motivated because it's what I want to do, not what other people want me to do"; "the reason why I study and do all my homework ... it is motivated by my freedom of choice"; "I'm doing it because I want to do it" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - chooses to engage in academic activities autonomously: "I'm able to do well if I apply myself, like if I don't go to class and don't do my homework then I'm not going to do well. So I think it's just the choices that I make"

Autonomous Motivation / Competence Satisfaction	<ul style="list-style-type: none"> - I think I have the ability to get good grades so I don't see why I wouldn't push myself to do that - I don't think I could do as well in the class if I didn't go to class and actually attend the lectures - I'm not afraid to really stand up for what I believe if my parents are telling me ... "you should go into medicine" ...I'm ... changing it now so that I'm more okay to go into nursing ... because [medicine is] hard to get into - I think I'm able to do well if I apply myself, like if I don't go to class and don't do my homework then I'm not going to do well - if I am having trouble with something I am going to spend more time on it, rather than just like leave it and hope for the best, so yea if I'm struggling with something more like I'll spend more time on it - when I struggle with a class I spend more time on it - if I'm really having trouble with it ... I work a lot harder so that I can like try and do better, just because I know that I am capable of it, I just have to ... everybody's not good at everything, so some things you have to work at a lot more - the [courses] that I'm like having trouble with and I know it's going to be like a struggle to get a good mark then I think that I spend more time trying to learn that material - I just think that I'm competent so might as well do all that I can do ...if I want to be a doctor, I might as well do that rather than just be like a lab tech or something - if ... I'm taking classes that I struggle with, like I probably have to spend more time on those classes than the ones that I enjoy 	<p>RECIPROCAL RELATIONSHIP Autonomous Motivation --> Competence Satisfaction (positive relationship) - high autonomous motivation is related to high competence satisfaction: "I don't think I could do as well in the class if I didn't go to class and actually attend the lectures"; "I think I'm able to do well if I apply myself"</p> <p>Competence Satisfaction -> Autonomous Motivation (positive or negative relationship, conditional) - high competence satisfaction is related to high autonomous motivation: "I think I have the ability to get good grades so I don't see why I wouldn't push myself to do that"; "I just think that I'm competent so might as well do all that I can do ... if I want to be a doctor, I might as well do that rather than ... a lab tech"</p> <p>- low competence satisfaction toward a specific course is related to high autonomous motivation within that course IF one has high overall competence satisfaction: "if I'm really having trouble with it ... I work a lot harder so that I can like try and do better, just because I know that I am capable of it, I just have to ... work at a lot more"; "when I struggle with a class I spend more time on it"</p> <p>OTHER COMMENTS: - competence satisfaction influences the target of autonomous motivation (acknowledges medicine is "hard to get into" and given current state of competence satisfaction, is autonomously motivated toward nursing as well as medicine)</p>
Controlling Motivation / Autonomy Satisfaction	<ul style="list-style-type: none"> - I'm taking them because I'm interested in them, not because other people said they're easy or they're good classes - I took Anthropology my first year because somebody told me it would be easy and interesting and I didn't like it so I stopped taking classes that other people told me would be good classes - I guess that's like my freedom [to set my own goals] ... rather than like what other people think I should be able to do - if I was dependent - like, for example in high school when parents are telling you to do homework - I'm motivated because it's what I want to do, not what other people want me to do, like I guess other people might agree with what I want to do - I do have people telling me [to be a doctor] but I don't really listen to it ... I kind of make up my mind like what I want to do myself so I don't think it matters 	<p>RECIPROCAL RELATIONSHIP Controlling Motivation --> Autonomy Satisfaction (positive relationship) - engaging in an activity one feels socially pressured to do (taking a class others recommend; controlling motivation) is related to increased autonomy satisfaction in the future if one determines there was no benefit of the previous controlling motivation: "I didn't like it so I stopped taking classes that other people told me would be good classes"</p> <p>Autonomy Satisfaction -> Controlling Motivation (negative relationship) - high autonomy satisfaction is related to decreased controlling motivation if one chooses not to accept the social pressure of others: "I do have people telling me [to be a doctor] but I don't really listen to it ... I kind of make up my mind like what I want to do myself"</p> <p>CONCEPTUAL SIMILARITY - lack of controlling motivation is conceptually similar to presence of autonomy satisfaction (no clear differentiation): "I'm taking them because I'm interested in them, not because other people said"; "that's like my freedom [to set my own goals] ... rather than like what other people think I should be able to do"; "it's what I want to do, not what other people want me to do"</p>
Controlling Mot. / Competence Sat.	<ul style="list-style-type: none"> - I don't think I could do as well in the class if I didn't go to class and actually attend the lectures so I guess that kind of is something that I have to do to 	<p>UNIDIRECTIONAL RELATIONSHIP Competence Satisfaction -> Controlling Motivation (positive relationship) - desire for competence satisfaction is related to increased controlling motivation: "I could [not] do as well in the class if I didn't ... attend the lectures so .. that ... is something that I have to do to"</p>

<p>Autonomy Satisfaction / Competence Satisfaction</p>	<ul style="list-style-type: none"> - I usually base my goals on what I think I can do, not... - so I guess that's like my freedom, like what I think I'm capable of rather than like what other people think I should be able to do - I think I'm able to do well if I apply myself, like if I don't go to class and don't do my homework then I'm not going to do well. So I think it's just the choices that I make that allow me to do well - I think I am competent and have the ability to get a degree and do whatever I want as a career. I don't think I'm limited in any way ... I don't want to sound cocky or anything but I think that if I want to be a doctor or lawyer or whatever I want to be, like I think if I put my mind to it I could do it 	<p>RECIPROCAL RELATIONSHIP Competence Satisfaction --> Autonomy Satisfaction (positive relationship) - high competence satisfaction is related to increased autonomy satisfaction to choose one's future career: "I think I am competent and have the ability to get a degree and do whatever I want as a career. I don't think I'm limited in any way ... if I want to be a doctor or lawyer ... I could do it" Autonomy Satisfaction --> Competence Satisfaction (positive relationship) - autonomy satisfaction to choose how one engages with academic activities is related to increased competence satisfaction if one chooses to apply one's self, attend courses, do homework, etc. MEDIATED by autonomous motivation</p> <p>OTHER COMMENTS: - autonomy and competence satisfaction combined influence the types of goals formed</p>
<p>Relationships Between Achievement Goal Theory Constructs and Outcomes</p>		
<p>Mastery-Approach Goals / Performance-Approach Goals</p>	<ul style="list-style-type: none"> - to do the best that I can do - if I actually understand it and can explain it in my own words or.. teach it to someone else then I will remember it when it comes to an exam - I just can't pull that information out ... if I don't really know what it means, and ... you can't really apply it in life if you just have it memorized and you can't ... give an example or teach it to somebody else, like it's not really as useful - Yea [I set the goal to learn the material so I ultimately can obtain a good mark] more so class average ... I try to do better than the class average, which I usually do but - it's not so much that I'm striving to do that, I think it's more so like a personal best but usually my personal best is above the class average, that's just kind of like a secondary thing ... I kind of like mark how I did based on how other people did too - I always try and do my best - [when I set a my goal as a specific numeric mark], I'm basing it on what I think I can do ... I don't have the same goal for every class ... there's some classes that I might struggle with more so I'm like "if I can get above an 85, then that's good" but then there's other classes where I'm like, okay I should be able to get in the 90's for sure, I know this information - I usually look at how other people did after I find out my marks ... after I've already set my goals about what I want to do so that's just kind of something I look at after - [I base my numeric goals on] how I think that I should be able to do ... how well I know the information - I mostly base [my goal mark] on ... how I think I could do on that test or in the class - [if] I don't like do better than the rest of the class, it's not as disappointing as if I don't do what I think I can personally do. - I try to strive to learn the material and understand how to do it so that I can get a good mark - I did [practice questions] because I wanted to do good in the class because I wanted to learn the material. - if I ... I understand it better ... I feel like I can do better in the classes - if I don't do my personal best then I don't feel good about it ... marks are important, but I think that's also like equally important. [by doing my personal best I mean] ... It's a bit of both [understanding the material and getting good marks] but I think like more so just because like the mark ... it's suppose to like be a representation of how well you know your stuff - it probably is more mark based, but ... I have to know the information well to get a good mark so it's ... both but I think I focus more on the mark. - if I'm like working towards something for multiple hours and I'm not getting it, and then when you finally get it ... I feel like better - or a more positive outcome from that rather than like from getting a good mark - if I don't understand something I can't just stop thinking about it ... I have to work it out before ... figure out the answer before I can move on ... I think I feel a bit more positive outcome from doing that ... than from getting a good mark. 	<p>RECIPROCAL RELATIONSHIP Mastery-approach goals --> Performance-approach goals (positive relationship) - obtainment of mastery goals will lead to obtainment of performance goals: "if I actually understand it and can explain it in my own words or ... then I will remember it when it comes to an exam"; "you can't really apply it in life if you just have it memorized"; "if I ... I understand it better ... I feel like I can do better in the classes"; "I have to know the information well to get a good mark" - obtainment of mastery goals is related to the specific performance goals one sets: "[I base my numeric goals on] how I think that I should be able to do ... how well I know the information"</p> <p>Performance-approach goals --> Mastery-approach goals (positive relationship) - desire to obtain performance goals influences one to set mastery goals: "I try to strive to learn the material and understand how to do it so that I can get a good mark"</p> <p>CONCEPTUAL SIMILARITY - goals focused on demonstration of competence but compared to self rather than others are not clearly mastery or performance: "to do the best that I can do"; "I try to do better than the class average ... it's not so much that I'm striving to do that ... it's more so like a personal best but usually my personal best is above the class average"; "do my best"; "how I think I could do" - sets numeric mark-based goals (performance) but sets them as a reflection of own personal competence (mastery): "the mark ... it's suppose to like be a representation of how well you know your stuff"; "I'm basing it on what I think I can do ... I don't have the same goal for every class ... there's some classes that I might struggle with more so I'm like "if I can get above an 85, then that's good" but then there's other classes where I'm like, okay I should be able to get in the 90"</p> <p>CONTEXTUAL RELATIONSHIP - distinct mastery and performance goals can co-exist: "I did [practice questions] because I wanted to do good in the class because I wanted to learn the material"; "if I don't do my personal best then I don't feel good about it ... marks are important, but I think that's also like equally important"</p> <p>OTHER COMMENTS: - goal for a specific numeric mark (performance/mastery) is primary focus/more important and goal to be better than others (pure performance) is secondary focus/less important: "I usually look at how other people did after I find out my marks"; "[if] I don't like do better than the rest of the class, it's not as disappointing as if I don't do what I think I can personally do"; "I think I focus more on the mark" - when directly comparing the positive outcomes of mastery and performance goals, believes that mastery goals result in a more positive outcome</p>

Mastery- Approach Goals / Academic Achievement	<ul style="list-style-type: none"> - the mark kind of, well it typically ... it's suppose to like be a representation of how well you know your stuff - it probably is more mark based, but like with saying that, I have to know the information well to get a good mark so it's kind of both but I think I focus more on the mark. 	<p>UNIDIRECTIONAL RELATIONSHIP Mastery-approach Goals --> Achievement (positive relationship)</p> <ul style="list-style-type: none"> - obtainment of mastery goals is necessary to obtain high achievement: "I have to know the information well to get a good mark" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - academic achievement (marks) are used as an indicator of having obtained a mastery goal ("a representation of how well you know your stuff")
Mastery- Approach Goals / Well- being	<ul style="list-style-type: none"> - it's more of what I expect from myself, like if I don't achieve what I think I can do, like my personal best it's disappointing - it's not as disappointing if I don't do what other people want me to do or if I don't like do better than the rest of the class, it's not as disappointing as if I don't do what I think I can personally do. - I set my goals based on what I think I can do and if I don't achieve them then that's more disappointing - if I don't do my personal best then I don't feel good about it - when I understand something ... if I'm like working towards something for multiple hours and I'm not getting it, and then when you finally get it ... I feel like better - or a more positive outcome from that rather than like from getting a good mark - if I don't understand something I can't just stop thinking about it, like I have to work it out before ... figure out the answer before I can move on. So like, I think I feel a bit more positive outcome from doing that rather than from getting a good mark. - it's always exciting when you achieve your goals. 	<p>UNIDIRECTIONAL RELATIONSHIP Mastery-approach Goals --> Wellbeing (positive relationship)</p> <ul style="list-style-type: none"> - not obtaining mastery goals is related to decreased well-being: "if I don't achieve what I think I can do, like my personal best it's disappointing"; "if I don't do my personal best then I don't feel good about it" - obtaining mastery goals is related to increased well-being: "when I understand something ... when you finally get it ... I feel like better - or a more positive outcome"; "it's always exciting when you achieve your goals" <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - disappointment resulting from not obtaining mastery goals is greater than the disappointment that results from not obtaining performance goals - positive well-being resulting from obtaining mastery goals is greater than the positive outcome from obtaining performance goals
Performance -Goals / Dedication	<ul style="list-style-type: none"> - trying to get into professional colleges, you're compared to like a ton of other people too so I guess that's probably kind of what brought [the desire to be better than others] on 	<p>UNIDIRECTIONAL RELATIONSHIP Dedication -> Performance-approach goals (positive relationship)</p> <ul style="list-style-type: none"> - high dedication toward obtaining a degree from a professional college (medicine) is related to increased performance goals (desire to be better than others) because one must be better than others to be admitted into the professional college
Performance -Approach Goals / Academic Achievement	<ul style="list-style-type: none"> - I set a goal for about what I want to get on that test - I probably set goals about like my overall average too ... its more so like marks - class average, like I try to do better than the class average - I probably set higher goals for myself like for marks - perform better I guess and get better marks - some classes that I might struggle with more so I'm like "if I can get above an 85, then that's good" but then there's other classes where I'm like, okay I should be able to get in the 90's - I usually look at how other people did after I find out my marks - I typically get pretty good marks in my classes ... that shows that I'm able to do well. - if I think that I can get a certain mark then that's what my goal is - I want to get certain marks this year and I ... set the goals - get the marks that I want to - after I write a test I'm like "okay I think I got like between 90 and 100 or something on it"...sometimes I do a lot better than I thought and sometimes I do worse - my marks have been going up so that's like a strong motivation ... to strive to do better - the mark ... it's suppose to ... be a representation of how well you know your stuff - it probably is more mark based, but ... I have to know the information well to get a good mark ... but I think I focus more on the mark. 	<p>UNIDIRECTIONAL RELATIONSHIP Achievement -> Performance-approach goals (positive relationship)</p> <ul style="list-style-type: none"> - achievement obtained in the past influences the performance goals one sets: "my marks have been going up [so I] strive to do better"; "some classes that I .. struggle with ... I'm like "if I can get above an 85, then that's good" ... other classes ... I'm like, okay I should be able to get in the 90's"; "if I think that I can get a certain mark then that's what my goal is" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - uses academic achievement (marks, overall average, class average, specific numerical percentages) as examples of / definitions for performance goals: "I probably set goals about my overall average"; "I try to do better than the class average"; "I set higher goals for myself, like for marks"; "if I can get above an 85"; "a certain mark then that's what my goal is" - considers academic achievement an indicator of performance goal obtainment: "I usually get pretty good marks in my classes ... that shows that I'm able to do well"; "the mark ... it's suppose to ... be a representation of how well you know your stuff" <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - obtainment of performance goals defined through achievement (specific marks, average) is more important than obtainment of performance goals to outperform others: "I usually look at how other people did after I find out my marks"; "I ... set goals about like my overall average too... its more so like marks"

Performance-Approach Goals / Well-being	<ul style="list-style-type: none"> - it's not as disappointing if I don't do what other people want me to do or if I don't like do better than the rest of the class, it's not as disappointing as if I don't do what I think I can personally do. - it is kind of disappointing when you do worse than you expected but it's nice when you do better than you expected too - it's always exciting when you achieve your goals. - setting goals about marks and you achieve them, that makes you feel good about yourself, if you don't achieve them, then you don't - if I don't understand something I can't just stop thinking about it, like I have to work it out before - like, figure out the answer before I can move on. So like, I think I feel a bit more positive outcome from doing that rather than from getting a good mark. - when I understand something, like I know like the classes that I have trouble with if I'm like working towards something for multiple hours and I'm not getting it, and then when you finally get it, like it - I feel like better - or a more positive outcome from that rather than like from getting a good mark. 	<p>UNIDIRECTIONAL RELATIONSHIP Performance-approach goals --> Wellbeing (positive relationship)</p> <ul style="list-style-type: none"> - exceeding performance goals is related to positive well-being and not obtaining performance goals is related to negative well-being: "it is kind of disappointing when you do worse than you expected but it's nice when you do better than you expected"; "it's always exciting when you achieve your goals."; "setting goals about marks and you achieve them, that makes you feel good about yourself, if you don't achieve them, then you don't" <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - disappointment resulting from not obtaining performance goals is lower than the disappointment that results from not obtaining mastery goals - positive well-being resulting from obtaining performance goals is greater than the positive outcome from obtaining mastery goals
Relationships Between Achievement Goal Theory and Self-Determination Theory Constructs		
Mastery-Goals / Intrinsic Mot	<ul style="list-style-type: none"> - how I think that I should be able to do, like the amount of studying that I did, like how well I know the information, I guess if I'm interested in the class too - if I enjoy something then I understand it better 	<p>UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Mastery-approach Goals (positive relationship)</p> <ul style="list-style-type: none"> - intrinsic motivation (whether one is interested in the class) is related to the types of mastery goals formed (how I think I should be able to do) and attainment of mastery goals: "if I enjoy something then I understand it better"
Mastery-Approach Goals / Autonomous Motivation	<ul style="list-style-type: none"> - I can't do as well if I don't go [to class] I learn better if ... I'm listening to a lecture and I'm taking notes than if I'm just reading the information on my own at home ... it takes less time I think to learn the information if I actually go to class and pay attention, so I think it's better to do that - pushing myself to do the best that I can do - when I actually went to class and like took notes and actively listened to what the prof was saying ... I felt like I understood the material better and it wasn't just like when it came time to study that I had to teach myself all the material, like I kind of remembered it - for physics I had to do lots of practice questions and everything so that I could figure out how to actually do it and, like I did that because ... I wanted to learn the material. - if I don't understand something I can't just move on, I have to figure it out otherwise it bothers me ... I strive more to learn it if I am really having trouble with it and spend more time trying to learn it - I think it's just something that I've gotten use to ... if I don't do my personal best then I don't feel good about it, so I think that's probably more ... I think that's also like equally important [to marks] - if I don't understand something I can't just stop thinking about it, like I have to work it out ... figure out the answer before I can move on. 	<p>RECIPROCAL RELATIONSHIP Autonomous Motivation --> Mastery-approach Goals (positive relationship)</p> <ul style="list-style-type: none"> - autonomous motivation to attend courses, listen, and take notes is related to the attainment of mastery goals: "I can't do as well if I don't go [to class] I learn better if ... I'm listening to a lecture and I'm taking notes"; "when I actually went to class and ... actively listened to what the prof was saying ... I felt like I understood the material better" <p>Mastery-approach Goals -> Autonomous Motivation (positive relationship)</p> <ul style="list-style-type: none"> - desire to obtain mastery goals is related to increased autonomous motivation: "it takes less time ... to learn the information if I actually go to class and pay attention, so I think it's better to do that"; "I had to do lots of practice questions and everything so that I could figure out how to actually do it and, like I did that because ... I wanted to learn the material"; "if I don't understand something I can't just move on, I have to figure it out" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - one is autonomously motivated to obtain mastery goals: "pushing myself to do the best that I can do" - believes doing her "personal best" is important
Mastery-G. / Controlling Mot.	<ul style="list-style-type: none"> - pushing myself to do the best that I can do - I have to do to be able to get good marks and to learn lots from the class - it's not really either [social pressure or enjoyment that influences the goals I set] I don't think 	<p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - experiences controlling motivation to set mastery goals ("pushing myself to do the best"; "I have to ... learn lots"); exist in same context but no evidence that one influences the other

Mast. Goals/ Aut. Sat.	I usually base my goals on what I think I can do, not... - so I guess that's like my freedom	CONTEXTUAL RELATIONSHIP - experiences high autonomy satisfaction and chooses to set mastery goals but no evidence that two variables influence each other
Mastery- Approach Goals / Competence Satisfaction	<ul style="list-style-type: none"> - I try to do better than the class average, which I usually do but - it's not so much that I'm striving to do that, I think it's more so like a personal best but usually my personal best is above the class average - it's not really either [social pressure or enjoyment that influences the goals I set] I don't think ... I think it's more of what I expect from myself, like if I don't achieve what I think I can do ... my personal best - I set my goals based on what I think I can do - I usually base my goals on what I think I can do - how I've felt about how I've done has improved since my first year university so like I can kind of see that I'm like getting better at it and I'm learning from my mistakes and trying to pick up on how I can actually do well because not everyone learns the same way - if ... I understand it better and I feel like I can do better in the classes 	RECIPROCAL RELATIONSHIP Competence Satisfaction --> Mastery-approach Goals (positive relationship) - high competence satisfaction is related to the setting of high mastery goals: "I set my goals based on what I think I can do" Mastery-approach Goals -> Competence Satisfaction (positive relationship) - obtainment of mastery goals is related to increased competence satisfaction: "how I've felt about how I've done has improved since my first year university ... I'm like getting better at it and I'm learning from my mistakes ... not everyone learns the same way"; "if ... I understand it better ... I feel like I can do better in the classes"
Performance -Approach Goals / Intrinsic Motivation	<ul style="list-style-type: none"> - I find if you like the class more, then you strive to do better in it, you are more motivated to do the reading and the homework - some of the specific classes that I took, I didn't like as much - but ... I still do pretty good in them, it's just I find if I actually enjoy them and can apply the information to my own life that I'm more interested in it and I'm more willing to do the homework - I still did good in most of the classes even if I didn't enjoy them - there's other classes where I'm like, okay I should be able to get in the 90's for sure, I know this information and its interesting - how I think that I should be able to do, like the amount of studying that I did, like how well I know the information, I guess if I'm interested in the class too - I probably set higher goals for myself like for marks [in courses I find interesting and enjoyable] the one class that I took last semester that I found really interesting is my highest mark in university so I think that kind of - like, I expected more from myself because I actually enjoyed reading the material. - if I enjoyed the class I could probably do better in it - if I enjoy something then I understand it better and I feel like I can do better in the classes - sometimes if I don't enjoy them like I can still do good in the classes - it's going to be harder to like apply myself and get the marks that I want to if I don't enjoy something ... if I don't enjoy it ... I find that it is harder to motivate myself to do the homework and the studying and whatnot, rather than if I enjoy the class 	UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Performance-approach Goals (positive relationship, conditional) - high intrinsic motivation is related to increased performance approach goals: "I expected more from myself because I actually enjoyed reading the material"; "if I enjoyed the class I could probably do better in it" MEDIATED by mastery goals: "I should be able to get in the 90's for sure, I know this information and its interesting"; "if I enjoy something then I understand it better and I feel like I can do better in the classes" - high intrinsic motivation is related to easier obtainment of performance goals and obtaining higher performance goals: "the one class that I took last semester that I found really interesting is my highest mark in university" - low intrinsic motivation is related to more difficult obtainment of performance goals MEDIATED by autonomous motivation: "I find if you like the class more, then you strive to do better in it, you are more motivated to do the reading and the homework"; "it's going to be harder to like apply myself and get the marks that I want to if I don't enjoy something"

<p>Performance -Goals / Autonomous Motivation</p>	<ul style="list-style-type: none"> - pushing myself to do the best that I can do - it's one of the things that determine if you get into medicine or any other professional college - trying to get into professional colleges, you're compared to like a ton of other people too so I guess that's probably kind of what brought that on - I think it was more from personal experience that I learned that I can do better and like perform better I guess and get better marks by doing that. - I don't think I could do as well in the class if I didn't go to class and actually attend the lectures - I have to set those goals for myself to like motivate myself to actually get it done - the reason why I study and do all my homework and like how I like try and organize it so I actually get it done is because I want to do good in my classes - I think I'm able to do well if I apply myself, like if I don't go to class and don't do my homework then I'm not going to do well - for physics I had to do lots of practice questions ... I did that because I wanted to do good in the class - I think I work a lot harder so that I can like try and do better - the [courses] that I'm like having trouble with and I know it's going to be like a struggle to get a good mark then I think that I spend more time trying to learn that material - if ... I'm not going to do good at the class I find that it is harder to motivate myself to do the homework and the studying - my marks have been going up so that's like a strong motivation to keep doing what I'm doing and to strive to do better, it's always nice to see when you improve - part of it is to get into a professional college, so like you need good marks but ... when I get into a profession college, I don't think I would put in any less effort even though you're already in so like usually you still have to maintain a certain average but you may not have to have like a 90, but I still think I would... I haven't been there and done that, so I don't know ...I still think I would even like, regardless of what I need for marks, I think it's just something that I've gotten use to ... marks are important - I think I'm more strongly motivated based on like the entire outcome ... to go into medicine and be a doctor ... the end picture is what motivates me to get there ... I think the end goal is probably more motivating but I think without the little goals, like how well I want to do in each class, I'd probably lose sight of the end goal - it's not really either [social pressure or enjoyment that influences my goals] I don't think ... I usually base my goals on what I think I can do... so I guess that's like my freedom 	<p>RECIPROCAL RELATIONSHIP Autonomous Motivation --> Performance-approach Goals (positive relationship) - autonomous motivation to attend a professional college is related to increased performance goals because: "it's one of the things that determine if you get into medicine or any other professional college", "trying to get into professional colleges, you're compared to like a ton of other people"; "to go into medicine and be a doctor ... is probably more motivating but I think without the little goals, like how well I want to do in each class, I'd probably lose sight of the end goal" - autonomous motivation is also related to obtainment of performance goals: "I can do better and like perform better I guess and get better marks by doing that" and lack of autonomous motivation is related to not obtaining performance goals: "I think I'm able to do well if I apply myself ... if I don't go to class and don't do my homework then I'm not going to do well" Performance-approach Goals -> Autonomous Motivation (positive relationship) - desire to obtain performance goals is related too increased autonomous motivation: "I don't think I could do as well in the class if I didn't go to class and actually attend the lectures"; "the reason why I study and do all my homework ... is because I want to do good in my classes"; "I did [practice questions] because I wanted to do good in the class"; "[if it's] a struggle to get a good mark then ... I spend more time trying to learn that material" - possessing performance goals is also related to increased autonomous motivation: "I have to set those goals for myself to like motivate myself to actually get it done" - belief that one will not obtain performance goals is related to reduced autonomous motivation: "if ... I'm not going to do good at the class I find that it is harder to motivate myself to do the homework and the studying" - obtaining performance goals is related to is related to increased autonomous motivation: "my marks have been going up so that's like a strong motivation to keep doing what I'm doing and to strive to do better"</p> <p>CONCEPTUAL SIMILARITY - autonomously motivated to obtain performance goals: "marks are important"; "I base my goals on what I think I can do"</p> <p>OTHER COMMENTS: - believes she will continue to set performance goals even after being admitted to a professional college because "it's just something that I've gotten use to ... marks are important"</p>
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Performance -Approach Goals / Controlling Motivation	<ul style="list-style-type: none"> - my parents have always kind of pushed it throughout high school ...[to] get good grades so that ... just stuck with me even though university - pushing myself to do the best that I can do - I guess like trying to get into a professional college, you have to be better than so many other people to get in - it's not really either [social pressure or enjoyment that influences my goals] I don't think ... I usually base my goals on what I think I can do... so I guess that's like my freedom, like what I think I'm capable of rather than like what other people think I should be able to do - in high school when parents are telling you to do homework and stuff, like I don't think I would have those goals on my own - part of it is to get into a professional college ... you need good marks but ... I get into a profession college, I don't think I would put in any less effort even though you're already in so like usually you still have to maintain a certain average but you may not have to have like a 90, but I still think I would... I haven't been there and done that, so I don't know, like I still think I would even like, regardless of what I need for marks 	<p>UNIDIRECTIONAL RELATIONSHIP: Controlling Motivation --> Performance-approach Goals (positive relationship, facilitating)</p> <ul style="list-style-type: none"> - controlling motivation (parental pressure to get good grades) in high school is related to increased performance goals in university: "in high school when parents are telling you to do homework and stuff, like I don't think I would have those goals on my own" - currently experiences low controlling motivation and autonomously chooses to set performance goals; expects that she will continue to set performance goals in the future when controlling motivation is even lower (when she is accepted into a professional college and no longer 'needs' high grades) <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - experiences controlling motivation to obtain performance goals: "pushing myself to do the best that I can do"; "you have to be better than so many other people to get in [to medicine]"; "you need good marks"; "have to maintain a certain average"
Performance -Goals / Autonomy Satisfaction	<ul style="list-style-type: none"> - I usually base my goals on what I think I can do ... I guess that's like my freedom, like what I think I'm capable of - the reason why I study and do all my homework ... is because I want to do good in my classes - so, but that's my choice that I want to do good so I think, yea like it is motivated by my freedom of choice - I think I'm able to do well if I apply myself, like if I don't go to class and don't do my homework then I'm not going to do well. So I think it's just the choices that I make that allow me to do well. 	<p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - experiences high autonomy satisfaction and chooses to set performance goals but no evidence that variables directly influence each other: "I usually base my goals on what I think I can do ... I guess that's like my freedom"; "that's my choice that I want to do good" <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - having the ability to choose how to engage in academic activities allows one to experience autonomous motivation which results in obtainment of performance goals ("I'm able to do well if I apply myself ... it's the choices that I make that allow me to do well"); but autonomy satisfaction does not appear to directly influence performance goals
Performance -Approach Goals / Competence Satisfaction	<ul style="list-style-type: none"> - I think I have the ability to get good grades - because sometimes you think you did really good but you didn't - more so class average, like I try to do better than the class average, which I usually do - some classes that I might struggle with more so I'm like "if I can get above an 85, then that's good" but then there's other classes where I'm like, okay I should be able to get in the 90's - [in the class I received] my highest mark in university ... I expected more from myself - what I expect from myself [influences the goals I set] - I set my goals based on what I think I can do - I usually base my goals on what I think I can do - I typically get pretty good marks in my classes ... I guess that shows that I'm able to do well. I'm also, like my marks and like how I've done - I think I'm able to do well if I apply myself - I usually set [goals] based on how I think I can do in the class, so like if I think that I can get a certain mark then that's what my goal is - if I'm really having trouble with it, I ... picture myself like everybody else, like kind of at class average ... because I know that I am capable of ... everybody's not good at everything - the [courses] that I'm like having trouble with and I know it's going to be like a struggle to get a good mark then I think that I spend more time trying to learn that material - if I don't feel like I'm going to do very good at the class then I'm probably not going to enjoy it and it's going to be harder to like apply myself and get the marks that I want to if I don't enjoy something - after I write a test I'm like "okay I think I got like between 90 and 100 or something on it", and like it's not always that - sometimes I do a lot better than I thought and sometimes I do worse, - sometimes you think you know it better, you just didn't do good on the test - setting goals about marks and you achieve them, that makes you feel good about yourself, if you don't achieve them, then you don't 	<p>RECIPROCAL RELATIONSHIP Competence Satisfaction --> Performance-approach Goals (positive relationship, conditional)</p> <ul style="list-style-type: none"> - competence satisfaction influences specific performance goals one sets: "I usually set [goals] based on how I think I can do in the class, so like if I think that I can get a certain mark then that's what my goal is"; "I set my goals based on what I think I can do"; "if I'm really having trouble with it, I ... picture myself ... at class average" - competence satisfaction is related to the obtainment of performance goals: "[in the class I received] my highest mark in university ... I expected more from myself"; BUT not always: "sometimes you think you know it better, you just didn't do good on the test"; "sometimes I do a lot better than I thought and sometimes I do worse" - low competence satisfaction is related to not obtaining performance goals <p>MEDIATED by intrinsic motivation, autonomous motivation and mastery goal obtainment: "the [courses] that I'm like having trouble with and I know it's going to be like a struggle to get a good mark then I think that I spend more time trying to learn that material"; "if I don't feel like I'm going to do very good at the class then I'm probably not going to enjoy it and it's going to be harder to like apply myself and get the marks"</p> <p>Performance-approach Goals --> Competence Satisfaction (positive relationship)</p> <ul style="list-style-type: none"> - obtainment of performance goals is related to increased competence satisfaction: "I typically get pretty good marks in my classes ... I guess that shows that I'm able to do well" and not obtaining performance goals is related to reduced competence satisfaction: "setting goals about marks and you achieve them, that makes you feel good about yourself, if you don't achieve them, then you don't" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - feels competent in her ability to get good grades/do well: "I have the ability to get good grades"; "I'm able to do well"

E-7. VARIABLE MATRIX FOR INTERVIEWEE A3

Explanations of Constructs as Experienced by Interviewee A3

Construct	Explanation	Comments
Intrinsic Motivation	<ul style="list-style-type: none"> - I enjoy school - I've always liked [reading] - since I was little, something I've enjoyed to do is learning about new things and being curious and you can't satisfy curiosity unless you're actively trying to learn about things - the people in my class were so diverse and this class encouraged discussion so you got to learn a lot of things from people - I think that's really interesting because you get to see different - even if it's on a subject that is so, you know, considered mundane, so like English, you just get so many different perspectives - wanting to learn things, being naturally curious about things, I want to learn - [class discussion] was really interesting, and I enjoy things like that - I ended up having a great time [in my night class] - I go to school because I enjoy it - you go through all your kind of crappy, entry level, first year classes and you just suffer through it because this is introductory and then you get to go to the fun stuff. So you know, first year university, that's all it mostly is is introductory classes and they're not necessarily the most fun things - my genuine enthusiasm for school, because - I genuinely enjoy it - I do enjoy being at university, not - even just besides the classes, I like being at the university, I like the atmosphere - I think that's a big reason why I feel motivated to come and succeed, because I enjoy it. - when I talk to them and they're like 'I can see you have emotion and drive and passion 	<p>KEYWORDS for intrinsic motivation present:</p> <ul style="list-style-type: none"> - I enjoy school / being at university - I've always liked reading - really interesting - having a great time - the fun stuff - genuine enthusiasm for school - I genuinely enjoy it - I like the atmosphere - emotion and drive and passion <p>KEYWORDS for intrinsic motivation not present:</p> <ul style="list-style-type: none"> - go through crappy, entry level, first year classer and suffer through it - not necessarily the most fun things <p>FOSTERED by:</p> <ul style="list-style-type: none"> - true enjoyment of academic activities (e.g. reading, learning) outside of and/or prior to enrolling in university - natural curiosity and a desire to learn new things - getting to know other students who are different from one's self - classes that encourage discussion - upper year classes with content one is truly interest in - enjoying the on-campus atmosphere <p>HINDERED by:</p> <ul style="list-style-type: none"> - first year introductory classes <p>CONCLUDED "LEVEL": HIGH</p>

Autonomous Motivation	<ul style="list-style-type: none"> - I engage in academic activities because ... I need it to do what I want to do eventually as a profession - I think it's important ... I think everyone should learn things ... I realize that not everyone learns the same way, likes learning about the same things, or even will pursue similar types of education, but I think that some sort of education in your life whether that be academic or even just practical is really important just for you as a person and to help you become a better person - I find academic pursuits very important - what you have on paper is important for say like getting a job or whatever, because they're going to look at what you have on paper - I know what I want to do [be a director] - I wouldn't ever consider not going to post secondary, just because I can't conceive of not doing that - the personal experiences that I got from [English class], the friends I made, the people I got to talk to and the experience that I had ... like having a personal relationship with a prof ... that is also very important - I ended up having a great time ... that, I think is as important as the grade - if you're going to get hired, you - it has to look good on paper. So, as much as the practical use of whatever you end up learning is, you still need to do well to succeed in other people's eyes, especially people who are potentially going to be hiring you for something - so that's important - I know I need to do this to be able to get to the fun stuff ... later ... you go through all your kind of crappy, entry level, first year classes and you just suffer through ... then you get to go to the fun stuff ... you know you get it done, and you go, and then you can achieve your goals - I feel that if I follow [people in the field's] advice and I follow my gut instinct ... and if I follow my plan, that I'll be able to succeed - I have friends who have such good potential and they decide to take a year off from school and then they go full time at like McDonald's and then they never leave, and that terrifies me ... I personally would feel like I'm not doing anything with my life and I'd feel like a failure ... I could never drop out of school just because, like, what else am I going to do? What would I do? I'm not built for doing anything else - in the art field, if you don't have an education ... they're not going to look at you no matter how talented you are ... you don't have education, no one's going to hire you ...there's nothing in this world that I want to do that I could do without education - if I got hired without the education, I wouldn't know what to do because I didn't take any of the classes, so it doesn't work out - these classes I'm taking right now really don't matter, I just have to transfer them to the U of R, and focus on the film classes when I get there 	<p>KEYWORDS for autonomous motivation present:</p> <ul style="list-style-type: none"> - I need it to do what I want to do eventually as a profession - I think it's important - I find academic pursuits very important - I can't conceive of not [going to university] - I know I need to do this to be able to get to the fun stuff - if I follow my plan, that I'll be able to succeed - [if I did not attend university] I personally would feel like I'm not doing anything with my life and I'd feel like a failure - you don't have education, no one's going to hire you - there's nothing in this world that I want to do that I could do without education <p>KEYWORDS for autonomous motivation not present:</p> <ul style="list-style-type: none"> - these classes I'm taking right now really don't matter <p>FOSTERED by:</p> <ul style="list-style-type: none"> - high dedication toward a specific profession (e.g. a director) and belief that a degree / education is needed for that profession - belief that any sort of education helps one "become a better person" - belief that gaining "personal experiences", making friends, talking to others who are different from one's self, having a great time, and having a personal relationship with a professor and important in life - belief that one "has to look good on paper" (i.e. high marks, earn degree, etc.) to be hired or succeed in the future - having a clear plan and goals for the future based on advice from others in one's chosen field and one's own choice - having friends who did not pursue university and deciding one does not want to be like those friends - fear of remaining at a subjectively poor job for life (belief that university degree or poor job are one's only two options) - belief that an education is needed to "know what to do" once hired <p>HINDERED by:</p> <ul style="list-style-type: none"> - belief that one's current classes "really don't matter" but that upper year courses specific to one's chosen profession will matter <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - experiences lack of enjoyment and disinterest in current courses but chooses to "suffer through" them in order to get to the "fun stuff" (upper year courses) <p>CONCLUDED "LEVEL": HIGH</p>
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Controlling Motivation	<ul style="list-style-type: none"> - I engage in academic activities because I have to do it - partly because of how I was raised ... my mom's a teacher ... my parents have always encouraged my brothers and I to be - to try to learn and to be open to outside influence - I have a very supportive family life that I've never felt that I have to absolutely to go to school - I've always been supported ... they know that's what I want to do. No matter what career direction I take, they've always known that I've wanted to go to university. So, I've never felt like I have to go to university even though it's not what I want to do sort of thing - Like peer pressure? No - no... Not like anyone regularly - like any one of my friends or whatever being like 'go to school', because ... we're all going to school... I have friends going into the medical field or education... they know that's not a fit for me - I've never had society being like - "mar, go to school" - you have to pass, you have to get good marks if you're going to get your degree - if you're going to get hired - I'm not going to go be a teacher like everyone expected me to be - if you don't go to class and you don't study, you suffer... I'm paying for my classes ... if I fail it's my own fault, I can't blame anyone else if I don't show up - I've asked him, because he's directed ... he told me, go to school, it doesn't matter where you go, just get a degree and find a script - there's nothing in this world that I want to do that I could do without education...so, what else am I going to do? I have to go to school - my mom was like 'I don't think you should go to art school' and I was like 'oh you just want me to be a teacher' ... she was like 'why don't you go to film school? I can see you would talk about art school and you shut down, you talk about a TV show and the type of camera that they used and you light up, and you can talk for hours about it ... why don't you look into that?' and it was never something I had conceived of because I didn't think it was an option... there's no film classes at my high school - you still need to do well to succeed in other people's eyes, especially people who are potentially going to be hiring you 	<p>KEYWORDS for controlling motivation present:</p> <ul style="list-style-type: none"> - I have to go to school / I have to do it - how I was raised - you have to pass - if you don't go to class and you don't study, you suffer - I'm paying for my classes - he told me, go to school ... get a degree - my mom was like 'I don't think you should go to art school' <p>KEYWORDS for controlling motivation not present:</p> <ul style="list-style-type: none"> - I've never felt that I have to absolutely to go to school - they know that's what I want to do - I've never had society being like - "mar, go to school" - I'm not going to go be a teacher like everyone expected me to be - you still need to do well to succeed in other people's eyes <p>FOSTERED by:</p> <ul style="list-style-type: none"> - parents who highly value education and learning - belief that obtaining a degree and high marks is the only way one will be hired, especially their chosen profession - guilt from cost of tuition and paying one's own expenses - guilt and self-blame if one does poorly as a result of not attending courses or studying - advice from others in one's chosen profession to obtain a degree <p>HINDERED by:</p> <ul style="list-style-type: none"> - having "a very supportive family life" - having many friends who are also attending university - acknowledging that different programs are right for different people - embracing the same value of education as one's parents <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - advice from others may be perceived as social pressure; but, if one actively sought this advice, motivation may be more autonomous than controlling - what initially appears as social pressure from others may actually highlight options one did not previously know where available and one may autonomously decide to pursue these options <p>CONCLUDED "LEVEL": MODERATE</p>
Mastery-Approach Goals	<ul style="list-style-type: none"> - what you actually know and can learn and can apply is a hundred times more important than what some piece of paper says. - try to learn and to be open to outside influences - trying to learn about things - to learn a lot of things from people that you didn't know before - To do as well as I possibly can, because ... you're not necessarily going to be better than everyone else at certain things - my goal is to do as best as I possibly can with the resources that I have - to do as well as I possibly can - University is an institution of learning and so I do want to learn, I do want to absorb as much as I can - I'm just going to continue to learn and I will continue to better myself 	<p>KEYWORDS for setting mastery goals:</p> <ul style="list-style-type: none"> - to learn, to be open to outside influences, to do as well as I possibly can, I do want to absorb as much as I can, to better myself <p>FOSTERED by:</p> <ul style="list-style-type: none"> - belief that being apply to learn and apply content is more important than grades - desire to obtain new knowledge - belief that one is not always going to be better than everyone else - respect for university as "an institution of learning" <p>CONCLUDED "LEVEL": HIGH</p>
Performance-Approach Goals	<ul style="list-style-type: none"> - my goal is to do as best as I possibly can with the resources that I have - to do as well as I possibly can - My goal is always, like in the beginning, to get a good mark ... I won't necessary get the mark that I thought I was going to get. I'm still trying to adjust, like apparently a 70 is really good in university ... I'm still in the high school mentality where it's like 'that's not that great' ... but, my goal is I always - I look to do well - To do as well as I possibly can, because ... you're not necessarily going to be better than everyone else at certain things - I am high achieving, so I always go into the course thinking like 'okay, I'm going to ace this' ... that's always my initial reaction to a class - I'm competitive, and I use to be way more competitive - <u>if they're hiring you, they're not going to be like 'oh, you scored 3% less than [another student] - no one's going to care</u> - I do want to do well, because as much as I like to think your marks don't matter, it's your talent, your marks do matter ... you have to pass, you have to get good marks if you're going to get your degree - if I don't do so well in one class, but I do better in another class and it gives me a good average, that's fine 	<p>KEYWORDS for setting performance goals:</p> <ul style="list-style-type: none"> - to do as best as I can, to do well, to get a good mark, to ace this, a good average <p>KEYWORDS for not setting performance goals:</p> <ul style="list-style-type: none"> - no one's going to care if I score 3% less than another student <p>FOSTERED by:</p> <ul style="list-style-type: none"> - identifying as someone who is "high achieving" and "competitive" - belief that one has to get good marks and pass to get a degree and obtain their desired profession <p>HINDERED by:</p> <ul style="list-style-type: none"> - belief that employers do not care about whether one outperformed others (but, believes employers care about grades) - belief that one will not outperform others <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - actual numerical grade may fluctuate within a course, but focus is always on demonstration of competence <p>CONCLUDED "LEVEL": MODERATE</p>

Autonomy Satisfaction	<ul style="list-style-type: none"> - it was my first year of university, so you get to branch out from your high school friends ... you get to meet a broad spectrum of people from all different types of situations that you would have never met before - there is a lot of freedom that I found this year... - the university ... has a lot of resources to help with student success ... there's the student disability service ... if you struggle with certain things ... you can get, academically, a lot of support ... like on a personal level, we have the USSU pride centre, I've never met another person like me [transgender] in my entire life until university ... and they have resources for students who are a minority ... whether that be race, sexual identity orientation ... the people that I've met, I choose to surround myself with positive people who understand and who like I know I can make a connection with ... good friends. So, the institution is really good ... all my profs have been very good ... legally, on paper, I'm still a girl with my birth name, but then I present myself a certain way ... I've talked to all my profs beforehand because it gets confusing on paper, and I've had awesome support from all my profs, no weirdness, I've never been treated differently by anyone ... it's a combination of the people in the institution and the institution itself - it's really different from high school because no one's chasing after you being like 'get to class' ... I like the independence because if I need to take a day where I just can't handle things, I can take that day and in the end you learn to be ... more responsible, a little bit more independent - I didn't think [being a director] was an option because I had never, you know, there was no options - there's no film classes at my high school 	<p>KEYWORDS for high autonomy satisfaction:</p> <ul style="list-style-type: none"> - you get to branch out - there is a lot of freedom that I found this year - no one's chasing after you being like 'get to class' - I like the independence - I choose to surround myself with positive people <p>KEYWORDS for low autonomy satisfaction:</p> <ul style="list-style-type: none"> - there was no options for film classes at my high school <p>FOSTERED by:</p> <ul style="list-style-type: none"> - change from high school to university environment (more choice in courses, no one chasing after you, greater independence, no strict requirements to attend courses) - ability to meet new people who are different from one's self and others who are similar to one's self - resources available to help students succeed (e.g. student disability services, USSU pride centre, - large number and variety of people with whom one can interact - professors who are supportive ("no weirdness") of minority students (transgender) and do not treat them differently <p>CONCLUDED "LEVEL": HIGH</p>
Competence Satisfaction	<ul style="list-style-type: none"> - I'm good at it... I'm not particularly... actively talented, I'm not good at like sports and stuff, so this is like my forte. - I've always been a strong reader ... I've been reading since I was five - the joke in my family has been I've been ready for university since grade 4 - I'm terrible at math, I almost failed math, my teacher went to my parents like 'you better get him tested for a learning disability', because I was so bad, but then if you looked at my marks in ... all my other classes, I'm getting high 90's and I had a 40 something in Math - school's always been easy for me, except for math - what I learned in high school when I did AP English, did not prepare me at all - and I thought I was going to be prepared - no, I can write 3 essays in 2 hours, but they're not necessarily going to be the structure that your prof wants - I've always been built up to think that I'm very gifted academically ... so I've already had a sense of confidence going in because ... all you're life you get people telling you 'oh, you're good at school, you're good at school' right? So, you get knocked down a little bit so you're less cocky when you get some of your first marks back ... you're like 'wow I really suck at writing essays', but I am confident because I learn from my mistakes ... I do have strong skills that will help me academically, and I feel confident that I'm just going to continue to learn and that I will continue to better myself and I will be able to achieve more... - Yea, for sure, yea [I feel competent in my abilities to continue] - I keep getting advise from people ... and I feel confident and competent and they always make me feel like when I talk to them and they're like 'I can see you have emotion and drive and passion and that's really important' so I always feel really confident and competent and being like 'okay, I can do this' - I can not imagine doing university without my ADD medication, it would be awful, I could do it 	<p>KEYWORDS for high competence satisfaction:</p> <ul style="list-style-type: none"> - I'm good at it - this is my forte. - I've always been a strong reader - I've been ready for university since grade 4 - school's always been easy for me - I feel confident and competent - I feel like 'okay, I can do this' - I'm very gifted academically - I do have strong skills that will help me academically <p>KEYWORDS for low competence satisfaction:</p> <ul style="list-style-type: none"> - I'm not actively talented, I'm not good at sports and stuff - I'm terrible at math - you get knocked down a little bit so you're less cocky - wow I really suck at writing essays <p>FOSTERED by:</p> <ul style="list-style-type: none"> - awareness that one was engaging in and ready for academic activities at an early age: "I've been reading since I was five"; "the joke in my family has been I've been ready for university since grade 4" - belief that one is naturally better at academic activities than others: "school's always been easy for me"; "I'm very gifted academically" - obtaining high marks in most classes: "all my other classes, I'm getting high 90's" - feeling prepared by previous courses - satisfaction with medication for learning/mental disorders (ADD) - advise and support from others: "they're like 'I can see you have emotion and drive and passion' ... so I always feel really confident and competent"; "I've always been built up to that think I'm very gifted academically" - belief that one is able to learn from their mistakes - attributing low demonstrations of competence to specific subjects or activities rather than to one's overall abilities <p>HINDERED by:</p> <ul style="list-style-type: none"> - earning poor grades in a subject (40%) or nearly failing subjects - having his teacher suggest to his parents that he may have a learning disability <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - context specific; high competence toward reading, low toward athletics and math <p>CONCLUDED "LEVEL": HIGH</p>

Academic Dedication	<ul style="list-style-type: none">- I'm eventually going to be going to film school- I couldn't be a doctor... I could do it, but I couldn't because I'd be miserable and I'd hate it.- Yea, to graduate, obviously... I want to become a director- if I drop out of school, what am I going to do? I'm going to work ... at a crappy part time job for the rest of my life, like I don't want to do that- I could never drop out of school- No, not even once [have I ever considered dropping out]	<p>KEYWORDS for high dedication:</p> <ul style="list-style-type: none">- I'm eventually going to film school, I want to become a director- I could never drop out of school- I don't want to work at a crappy part time job the rest of my life <p>FOSTERED by:</p> <ul style="list-style-type: none">- having clear, long-term career plans and belief that a university degree is the only way to obtain this career (strong dislike for any alternative careers) <p>OTHER COMMENTS:</p> <ul style="list-style-type: none">- context specific; high dedication to be a director, low to be a doctor <p>CONCLUDED "LEVEL": HIGH</p>								
Academic Achievement	<ul style="list-style-type: none">- I didn't get the best mark academically I could of gotten in my English class last semester- to get a good mark- apparently a 70 is really good in university - but, you know, I'm still in the high school mentality where it's like 'that's not that great'	<p>KEYWORDS for low achievement:</p> <ul style="list-style-type: none">- I didn't get the best mark academically- a 70 is really good in university ... I'm still in [the] mentality where it's like 'that's not that great' <p>OTHER COMMENTS:</p> <ul style="list-style-type: none">- achievement is highly subjective (appears he obtains moderate grades but perceives them to be low) <p>CONCLUDED "LEVEL": MODERATE</p>								
Well-being	<ul style="list-style-type: none">- I was terrified of this night class, like social anxiety, being like 'I've never got to a night class before, I don't know anyone who is going to be there', because I knew at least one other person in all my other classes' like, 'what am I going to do?' and most of them were older than me and I felt like 'oh my God, what am I going to do?'- [being competitive] brings a lot of negative mental stress- if you didn't do the best that you did, I understand being frustrated with yourself- this year has been incredibly liberating academically and personally- I'd get really stressed out and I'd fight with my parents all the time- I'm also attention deficit disorder with anxiety problems... getting ...all that sorted out and ... medicated ... you have to be positive, in a mentally and physically positive area- Yea [broader life issues contribute to my well-being more so than individual school]- in the end, having all the broad things working for me will work better than fixing a bunch of tiny things all at once, you know, there's so many tiny things that you could let get you down that you're just going to get overwhelmed, and even if in the broad spectrum things are going okay	<p>KEYWORDS for high wellbeing:</p> <ul style="list-style-type: none">- this year has been incredibly liberating academically and personally- in a mentally and physically positive area <p>KEYWORDS for low wellbeing:</p> <ul style="list-style-type: none">- terrified, social anxiety, anxiety problem, negative mental stress, being frustrated with yourself, stressed out, get you down, get overwhelmed <p>FOSTERED by:</p> <ul style="list-style-type: none">- diagnosis and medication for ADD and anxiety issues- focus on broad life issues rather than minor everyday problems <p>HINDERED by:</p> <ul style="list-style-type: none">- new experiences that cause anxiety (e.g. night classes, not knowing anyone else in one's class, being the youngest in a class)- being competitive- belief that one did not do as well as they could- broader life issues <p>CONCLUDED "LEVEL": MODERATE</p>								
Relationships Between Constructs as Experienced by Interviewee A3										
<p>NO DATA for the following relationships:</p> <table><tr><td>Autonomy Satisfaction/ Academic Dedication</td><td>PerformanceGoals / Autonomy Satisfaction</td></tr><tr><td>Competence Satisfaction / Academic Dedication</td><td>Mastery-Goals / Autonomy Satisfaction</td></tr><tr><td>Autonomy Satisfaction / Academic Achievement</td><td>Mastery-Approach Goals / Academic Dedication</td></tr><tr><td>Controlling Motivation / Competence Satisfaction</td><td>Autonomy Satisfaction / Competence Satisfaction</td></tr></table>			Autonomy Satisfaction/ Academic Dedication	PerformanceGoals / Autonomy Satisfaction	Competence Satisfaction / Academic Dedication	Mastery-Goals / Autonomy Satisfaction	Autonomy Satisfaction / Academic Achievement	Mastery-Approach Goals / Academic Dedication	Controlling Motivation / Competence Satisfaction	Autonomy Satisfaction / Competence Satisfaction
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Relationships Between Outcome Variables and Motivation Types										
Intrinsic Motivation / Academic Dedication	<ul style="list-style-type: none">- I couldn't be a doctor... I could do it, but I couldn't because I'd be miserable and I'd hate it	<p>UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Dedication (positive relationship)</p> <ul style="list-style-type: none">- low intrinsic motivation toward a profession ("I'd be miserable and I'd hate it") is related to low dedication toward that profession ("I couldn't be a doctor") <p>OTHER COMMENTS:</p> <ul style="list-style-type: none">- not mediated by competence satisfaction								

Autonomous Motivation / Academic Dedication	<ul style="list-style-type: none"> - I want to become a director ... I've gotten some really good advice from people who work in the field and I feel that if I follow their advice and I follow my gut instinct ... and if I follow my plan, that I'll be able to succeed - if I drop out of school, what am I going to do? I'm going to work - like, at a crappy part time job for the rest of my life, like I don't want to do that - I could never drop out of school just because, like, what else am I going to do? What would I do? I'm not built for doing anything else 	<p>RECIPROCAL RELATIONSHIP</p> <p>Autonomous Motivation --> Dedication (positive relationship)</p> <ul style="list-style-type: none"> - autonomous motivation to complete university and obtain a good job is related to increased dedication: "I could never drop out of school because ... what else am I going to do? ... work at a crappy part time job for the rest of my life ... I don't want to do that" <p>Dedication -> Autonomous Motivation (positive relationship)</p> <ul style="list-style-type: none"> - dedication toward a specific profession ("I want to become a director") is related to increased autonomous motivation to obtain information about program, advice from others, and "follow my plan ... to succeed"
Controlling Motivation / Academic Dedication	<ul style="list-style-type: none"> - you have to pass, you have to get good marks if you're going to get your degree - if you're going to get hired - [a director I admire] told me, go to school, it doesn't matter where you go, just get a degree 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Dedication -> Controlling Motivation (positive relationship)</p> <ul style="list-style-type: none"> - high dedication toward obtaining a specific profession is related to increased controlling motivation to get good marks and obtain a degree: "you have to pass, you have to get good marks"; "he told me, go to school ... get a degree"
Intrinsic Motivation / Academic Achievement	<ul style="list-style-type: none"> - I didn't get the best mark academically I could of gotten in my English class last semester ... but, the experience was incredibly enriching for me, I learned a lot about writing essays for university - I ended up having a great time, you know, and so that, I think is as important as the grade that I ended up getting - my genuine enthusiasm for school [is probably the most powerful contributor to my grades], because ... summer is like the worst time for me, I get annoyed when I don't have school - and I don't know what I'm going to do during four months without school, you know, I can do a month without and then it's like 'okay, I'm sick of this, I need to go back to school' ... because I genuinely enjoy it, so I think that's, you know, that's a big factor [in my grades] 	<p>UNIDIRECTIONAL RELATIONSHIP intrinsic motivation -> achievement (positive relationship)</p> <ul style="list-style-type: none"> - believes high intrinsic motivation is related to the obtainment of high academic achievement (grades): "my genuine enthusiasm for school ... I genuinely enjoy it, so I think that's ... a big factor [in my grades]" <p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - generally experiences high intrinsic motivation and high achievement but insufficient evidence to claim that one influences the other - also obtains subjectively low grades ("I didn't get the best mark academically I could have gotten") despite high intrinsic motivation ("the experience was incredibly enriching for me") - believes intrinsic motivation and achievement are equally as important
Autonomous Motivation / Academic Achievement	<ul style="list-style-type: none"> - if I get a bad mark it's my own fault, and I get mad at myself, but it's because I didn't try - a lot of the time, if I feel personally fulfilled, that could be enough to make me feel like I'm succeeding, to continue doing it - even if the mark is bad - most of the time, having a good mark is really motivating 	<p>RECIPROCAL RELATIONSHIP</p> <p>Autonomous Motivation --> Achievement (positive relationship)</p> <ul style="list-style-type: none"> - believes that autonomous motivation (trying) is related to increased achievement <p>Achievement -> Autonomous Motivation (positive relationship, conditional)</p> <ul style="list-style-type: none"> - subjectively high achievement is related to increased autonomous motivation: "having a good mark is really motivating" - but, if autonomous motivation is high ("I feel personally fulfilled"), then low achievement does not lead to decreased motivation: "[I] continue to do it - even if the mark is bad"
Controlling Mot. / Achiev.	<ul style="list-style-type: none"> - you have to pass, you have to get good marks if you're going to get your degree - if you're going to get hired 	<p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - experiences controlling motivation to obtain good marks in order to ultimately pass, obtain a degree, and get hired in the future; but, no clear evidence whether controlling motivation and achievement influence each other

Intrinsic Motivation / Well-being	<ul style="list-style-type: none"> - I'm not going to feel motivated to go and do it even if I'm doing well even if I hate it - if ... I don't find you know, joy in it, I'm not going to feel like I'm succeeding because I'm frustrated 	<p>RECIPROCAL RELATIONSHIP</p> <p>Wellbeing -> Intrinsic Motivation (positive relationship) - low well-being within a course ("if I hate it") is related to decreased intrinsic motivation</p> <p>Intrinsic Motivation -> Wellbeing (positive relationship) - low intrinsic motivation (if I don't find now in it) is related to reduced well-being (frustration)</p> <p>OTHER COMMENTS: - not mediated by competence satisfaction or academic achievement</p>
Autonomous Motivation / Well-being	<ul style="list-style-type: none"> - if I get a bad mark it's my own fault, and I get mad at myself, but it's because I didn't try - I was terrified of this night class, like social anxiety, being like 'I've never got to a night class before, I don't know anyone who is going to be there', because I knew at least one other person in all my other classes' like, 'what am I going to do?' and most of them were older than me and I felt like 'oh my God, what am I going to do?' I ended up having a great time, you know, and so that, I think is as important as the grade that I ended up getting. - I've always been motivated to go to school, even when things were really bad, just because I didn't really know anything else 	<p>UNIDIRECTIONAL RELATIONSHIP Autonomous Motivation --> Wellbeing (positive relationship) - low autonomous motivation (feeling as though one didn't try) is related to decreased well-being ("I get mad at myself") possibly MEDIATED by low achievement</p> <p>NO RELATIONSHIP Wellbeing -> Autonomous Motivation (conditional?) - low well-being is not related to decreased autonomous motivation: "I've always been motivated to go to school, even when things were really bad" - low well-being at the start of a course ("terrified of this night class ... social anxiety") did not hinder autonomous motivation to enrol in or complete course</p>
Controlling Motivation / Well-being	<ul style="list-style-type: none"> - this year has been incredibly liberating academically and personally, because I've been making my own choices - I'm not going to go be a teacher like everyone expected me to be because ... I'm going into film - if you don't go to class and you don't study, you suffer ... you're paying for the classes ... if I fail it's my own fault, I can't blame anyone else if I don't show up - my mom was like 'I don't think you should go to art school' and I was like 'oh you just want me to be a teacher' - something stupid like that, you know? But then, one time we were having lunch and she mentioned something about my favorite TV show, trailer park boys, and I lit up, and I started going on and on about how funny the show is ... she was like 'why don't you go to film school? I can see you would talk about art school and you shut down, you talk about a TV show and the type of camera that they used and you light up 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Controlling Motivation --> Wellbeing (negative relationship) - low controlling motivation is related to increased well-being: "this year has been incredibly liberating academically and personally, because I've been making my own choices - I'm not going to go be a teacher like everyone expected me to be" - high controlling motivation is related to decreased well-being: "[my mom told me] I can see you would talk about art school [which you feel forced to enrol in] and you shut down, you talk about a TV show and the type of camera that they used and you light up"</p> <p>OTHER COMMENTS: - controlling motivation (guilt from cost of tuition) and desire to avoid low well-being (suffer) leads to increased autonomous motivation to attend classes</p>
Relationships Between Outcome Variables and Needs Satisfaction		
Competence Satisfaction / Academic Achievement	<ul style="list-style-type: none"> - sometimes if I get a grade and I'm disappointed in it, I'll feel like - I'll be like 'oh man, I suck' - a lot of the time, if I feel personally fulfilled, that could be enough to make me feel like I'm succeeding, to continue doing it - even if the mark is bad 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Achievement -> Competence Satisfaction (positive relationship, conditional) - low subjective achievement is related to decreased competence satisfaction: "if I get a grade and I'm disappointed in it ... I'll be like 'oh man, I suck'" MEDIATED by high well-being, autonomous motivation, or autonomy satisfaction: "if I feel personally fulfilled, that could be enough to make me feel like I'm succeeding ... even if the mark is bad"</p>

Autonomy Satisfaction / Well-being	<ul style="list-style-type: none"> - I went to a small catholic high school in the city and at university I've been able to ... grow, you get to be more independent, more adult - and I'm actually female-to-male transgender and so I didn't get to do that in high school, I don't really get to do that at home as much - but here ... you kind of get to do your own thing and make your own choices, so, for me, this year has been incredibly liberating academically and personally, because I've been making my own choice - you learn an independence ... there's consequences to your actions, so you do learn to be independent and to kind of be more - more of an adult, so if you're in a situation that's like 'oh, I don't have to go, but I could not go', but then you suffer for it - as I got my personal life sorted out, you know, like coming out to my family and friends as being male and not some girl, then.. and getting all that sorted out, then suddenly everything was better - it's awesome when you get your personal life sorted out 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Autonomy Satisfaction --> Wellbeing (positive relationship, conditional)</p> <ul style="list-style-type: none"> - autonomy satisfaction is related to increased well-being: "you kind of get to do your own thing and make your own choices, so, for me, this year has been incredibly liberating academically and personally, because I've been making my own choice"; "as I got my personal life sorted out ... suddenly everything was better" <p>MEDIATED by autonomous motivation: autonomy satisfaction can lead to reduced well-being if one is not autonomously motivated to engage in their academic activities: "[you have choice but] there's consequences to your actions ... if you're in a situation that's like 'oh, I don't have to go, but I could not go' [and you choose not to go] then you suffer for it"</p> <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - differentiation between autonomy when engaging in courses (can potentially lead to reduced well-being) and autonomy to be one's self throughout university life (may always lead to positive well-being)
Competence Satisfaction/ Well-being	<ul style="list-style-type: none"> - if I'm good at something and I don't find you know, joy in it, I'm not going to feel like I'm succeeding because I'm frustrated - because that's something I've always thought I was really really good at, and then when I got this essay back and I did really really bad, I was like a little devastated because, like I always thought that I was really good at writing essays 	<p>RECIPROCAL RELATIONSHIP</p> <p>Wellbeing--> Competence Satisfaction (positive relationship, conditional)</p> <ul style="list-style-type: none"> - low well-being (frustration) is related to decreased competence satisfaction ("I'm not going to feel like I'm succeeding") IF one also experiences low intrinsic motivation: "if ... I don't find ... joy in it, I'm not going to feel like I'm succeeding because I'm frustrated" - not mediated by high competence satisfaction <p>Competence Satisfaction -> Wellbeing (negative relationship, conditional?)</p> <ul style="list-style-type: none"> - high competence satisfaction can cause reduced well-being IF one's academic achievement does not reflect their perceived competence: "when I got this essay back and I did really really bad, I was like a little devastated because, like I always thought that I was really good at writing essays" <p>MEDIATED by academic achievement</p>
Relationships Between Motivation Types and Needs Satisfaction		
Intrinsic Motivation / Autonomou s Motivation	<ul style="list-style-type: none"> - I enjoy school and I need it to do what I want to do eventually as a profession - I ended up having a great time ...that, I think is as important as the grade - I go to school because I enjoy it but I also go to school because I know I need to do this to be able to get to the fun stuff ...you go through all your kind of crappy, entry level, first year classes and you just suffer through it because this is introductory and then you get to go to the fun stuff. So you know, first year university, that's all it mostly is is introductory classes and they're not necessarily the most fun things, but you know you get it done, and you go, and then you can achieve your goals - I'll go - even if I don't like it, I'll go.. just because I don't know what I'd do otherwise ... because I do enjoy being at university, not - even just besides the classes, I like being at the university, I like the atmosphere, I like the busy feeling, you know? ... I think that's a big reason why I feel motivated to come and succeed, because I enjoy it - so I had been doing AP art, I had been working on a portfolio - I had spent two years on this portfolio and I enjoy it and so I was like 'that's what I want to do, I want to go into art school' - when I talk to them and they're like 'I can see you have emotion and drive and passion and that's really important' 	<p>RECIPROCAL RELATIONSHIP</p> <p>Intrinsic Motivation --> Autonomous Motivation (positive relationship, conditional)</p> <ul style="list-style-type: none"> - desire to attend classes for which one is intrinsically motivated (upper year classes with more interesting content) is related to increased autonomous motivation toward current classes (you get it done so you can achieve your goals) despite low intrinsic motivation (you just suffer through it) - intrinsic motivation to be on campus (I enjoy being at university) is related to increased autonomous motivation to attend despite low intrinsic motivation toward specific courses (even if I don't like it, I'll go): "I think that's a big reason why I feel motivated to come and succeed, because I enjoy it" <p>Autonomous Motivation -> Intrinsic Motivation (positive relationship)</p> <ul style="list-style-type: none"> - autonomous motivation to engage in courses leads to increased intrinsic motivation once one is admitted into the program for which they are intrinsically motivated <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - autonomously motivated to be intrinsically motivated (i.e. intrinsic motivation is important): "having a great time ... is important"; "you have emotion and drive and passion and that's really important" <p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - high intrinsic (I enjoy school) and autonomous (I need it to do what I want to do eventually) can exist independently in the same context

<p>Intrinsic Mot. / Controlling Mot.</p>	<ul style="list-style-type: none"> - I engage in academic activities because I have to do it, otherwise I go crazy with boredom. I enjoy school - there's nothing in this world that I want to do that I could do without education... so, what else am I going to do? I have to go to school, and I like it, so it's not that bad - I had been working on a portfolio ... and I enjoy it and so I was like 'that's what I want to do, I want to go into art school' and my mom was like 'no you don't, so I'm really glad my mom knew me well enough to be like 'don't go to art school' 	<p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - intrinsic (I enjoy school) and controlling (I have to do it) can exist independently in the same context <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - high intrinsic motivation mediates negative effects of controlling motivation on well-being: "I have to go to school, and I like it, so it's not that bad"
<p>Autonomous Motivation / Controlling Motivation</p>	<ul style="list-style-type: none"> - I find academic pursuits very important because ... of how I was raised ... my mom's a teacher, and my dad has always been very good about like teaching stuff to us - I know what I want to do, and I have a very supportive family life that I've never felt that I have to absolutely to go to school ... I've had my mom tell me things that like ... all the time, because like she knows me, that I wouldn't ever consider not going to post secondary, just because I can't conceive of not doing that ... apparently the joke in my family has been I've been ready for university since grade 4; so, I've always been supported, just because they know that's what I want to do. No matter what career direction I take, they've always known that I've wanted to go to university. So, I've never felt like I have to go to university even though it's not what I want to do sort of thing - if you don't go to class and you don't study, you suffer ... I'm paying for my classes ... if I fail it's my own fault, I can't blame anyone else if I don't show up ... but there's consequences to your actions, so you do learn to be independent so if you're in a situation that's like 'oh, I don't have to go, but I could not go', but then you suffer for it. - I had been working on a [art] portfolio - I had spent two years on this portfolio ... so I was like 'that's what I want to do, I want to go into art school' and my mom was like 'no you don't, so I'm really glad my mom knew me well enough to be like 'don't go to art school' - Yea, [I don't interpret that as social pressure, more so her] giving me the option, because I didn't think it was an option - it had never crossed my mind before ... I am really glad - because it wasn't more of a social pressure, my mom wasn't like 'oh don't be a painter, be a movie maker instead', it was more like, 'well why don't you look into this, because that's what you're passionate about' and she was right 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Controlling Motivation -> Autonomous Motivation (positive relationship, conditional)</p> <ul style="list-style-type: none"> - parental pressure as a child to engage in academic activities (controlling motivation) is related to increased autonomous motivation as an adult if one embraces these values - guilt over cost of tuition and fear of self-blame for doing poorly (controlling motivation) are related to increased autonomous motivation to attend courses: "I'm paying for my classes ... if I fail it's my own fault, I can't blame anyone else if I don't show up ... but there's consequences to your actions, so you do learn to be independent" <p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - experiences low controlling (I've always been supported) and high autonomous motivation (I know what I want to do) simultaneously <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - parental pressure to attend certain programs may not be perceived as controlling motivation if the student values their parent's opinion and view it as a viable option not previously considered, thus becoming autonomous motivation: "I'm really glad my mom knew me well enough to be like 'don't go to art school'"; "[my mom gave] me the option, because I didn't think it was an option - it had never crossed my mind before"
<p>Intrinsic Mot. / Autonomy Sat.</p>	<ul style="list-style-type: none"> - well in general [what I've found especially enjoyable or interesting was] it was my first year of university, so you get to branch out from your high school friends - sort of thing, so you know, you get to meet a broad spectrum of people from all different types of situations that you would have never met before 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Autonomy Satisfaction -> Intrinsic Motivation (positive relationship)</p> <ul style="list-style-type: none"> - increased autonomy satisfaction (ability to "branch out from your high school" and choose your friends and new situations) within first year university is related to increased intrinsic motivation

<p>Intrinsic Motivation / Competence Satisfaction</p>	<ul style="list-style-type: none"> - I've always liked - I've always been a strong reader. - the experience was incredibly enriching for me, I learned a lot about writing essays for university ... what I learned in high school ... did not prepare me ... I thought I was going to be prepared - no, I can write 3 essays in 2 hours, but they're not necessarily going to be the structure that your prof wants - if you don't enjoy it, it's hard to feel confident about something ... you know you can do it, but you're like 'uh - oh - uh - ugh, I don't really know' ha, so I don't think I would be as confident if I didn't enjoy it ... I don't really have a frame of reference for not being confident at school, like I have my two brothers who aren't necessarily really gifted in the same areas that I am in certain parts of academics ... they can do it, and they can succeed if they work hard, but they don't enjoy it and that - it impedes your competence ... it makes it harder to succeed because if you don't enjoy it and you don't feel like you are succeeding, even if you are - if I'm good at something and I don't find ... joy in it, I'm not going to feel like I'm succeeding because I'm frustrated, like I might, I may be really good at like a job, like a part time job, but I'm not going to feel motivated to go and do it even if I'm doing well ... if I hate it - they're like 'I can see you have emotion and drive and passion and that's really important' so I always feel really confident and competent and being like 'okay, I can do this' 	<p>RECIPROCAL RELATIONSHIP</p> <ul style="list-style-type: none"> - has always felt intrinsically motivated toward things he has always been competent in ("I've always liked - I've always been a strong reader") <p>Intrinsic Motivation --> Competence Satisfaction (positive relationship)</p> <ul style="list-style-type: none"> - high intrinsic motivation is related to increased competence: "[they tell me I] have emotion and drive and passion and that's really important' so I always feel really confident and competent" - low intrinsic motivation is related to low competence satisfaction: "if you don't enjoy it, it's hard to feel confident about something ... I don't think I would be as confident if I didn't enjoy it ... it impedes your competence ... it makes it harder to succeed because if you don't enjoy it ... you don't feel like you are succeeding" - relationship exists even if objective competence is high: "if I'm good at something and I don't find ... joy in it, I'm not going to feel like I'm succeeding because I'm frustrated" <p>Competence Satisfaction -> Intrinsic Motivation (positive relationship, conditional)</p> <ul style="list-style-type: none"> - increased competence satisfaction is related to increased intrinsic motivation ("the experience was incredibly enriching for me, I learned a lot about writing essays") within academia but is unrelated in other instances: "I may be really good at like a job, like a part time job, but I'm not going to feel motivated to go and do it even if I'm doing well" - persistency of relationship is unclear given that "I don't really have a frame of reference for not being confident at school"
<p>Autonomous Motivation / Autonomy Satisfaction</p>	<ul style="list-style-type: none"> - I like the independence because if I need to take a day where I just can't handle things, I can take that day and in the end you learn to be a little bit more responsible, a little bit more independent, because if you don't go to class and you don't study, you suffer ... if I fail it's my own fault, I can't blame anyone else if I don't show up ... you learn an independence ... there's consequences to your actions, so you do learn to be independent and to ... be more - more of an adult, so if you're in a situation that's like 'oh, I don't have to go, but I could not go', but then you suffer for it ... you get to learn the choices that you make have consequence ... you learn to be independent and to rely on yourself, and to make yourself do things - as soon as I got my personal life sorted out ... like coming out to my family and friends as being male ... then suddenly everything was better and I was more motivated ... I've always been motivated to go to school, even when things were really bad, just because I didn't really know anything else ... as soon as I get all my - back on positive track, everything just sort of clicked and now I'm way more motivated to go to school and stuff and to achieve my goals and to do certain things ... it's awesome when you get your personal life sorted out 	<p>UNIDIRECTIONAL RELATIONSHIP Autonomy Satisfaction -> Autonomous Motivation (positive relationship)</p> <ul style="list-style-type: none"> - autonomy satisfaction (having the freedom to not engage in academic activities) is related to increased autonomous motivation to engage in academic activities in the future because of the negative consequences of having not engaged in academic activities: "if you don't go to class and you don't study, you suffer ... the choices that you make have consequence ... you learn to be independent and to rely on yourself, and to make yourself do things" - autonomy satisfaction (feeling free and able to be one's self on campus) is also related to increased autonomous motivation: "as I got my personal life sorted out ... coming out [as transgender] ... suddenly everything was better and I was more motivated ... everything just sort of clicked and now I'm way more motivated to go to school ... when you get your personal life sorted out" <p>possibly MEDIATED by increased well-being</p>
<p>Autonomous Mot. / Competence Sat.</p>	<ul style="list-style-type: none"> - I think that my confidence and my competency of what I think I can achieve really does motivate me, because if I felt like I couldn't make it in film school, I definitely wouldn't go, because that's a very iffy future, career wise - I keep getting advice from people and I just keep that in mind and I feel confident and competent ... when I talk to them and they're like 'I can see you have emotion and drive and passion and that's really important' so I always feel really confident and competent and being like 'okay, I can do this' so, yea, it definitely motivates what I want to do - [if I] feel like I'm succeeding, [I] continue doing it - even if the mark is bad 	<p>UNIDIRECTIONAL RELATIONSHIP Competence Satisfaction -> Autonomous Motivation (positive relationship)</p> <ul style="list-style-type: none"> - increased competence satisfaction is related to increased autonomous motivation: "my confidence and my competency of what I think I can achieve really does motivate me, because if I felt like I couldn't make it in film school, I definitely wouldn't go" - not mediated by low achievement: "[if I] feel like I'm succeeding, [I] continue doing it - even if the mark is bad"

Controlling Motivation / Autonomy Satisfaction	<ul style="list-style-type: none"> - this year has been incredibly liberating academically and personally, because I've been making my own choices - I'm not going to go be a teacher like everyone expected me to be ... I'm going into film - she was like 'why don't you go to film school? I can see you would talk about art school and you shut down, you talk about a TV show and the type of camera that they used and you light up, and you can talk for hours about it and about that kind of thing, why don't you do that? why don't you look into that?' and it was never something I had conceived of because I didn't think it was an option because I had never, you know, there was no options - there's no film classes at my high school - Yea, giving me the option, because I didn't think it was an option - it had never crossed my mind before 	<p>UNIDIRECTIONAL RELATIONSHIP Controlling Motivation --> Autonomy Satisfaction (positive relationship)</p> <ul style="list-style-type: none"> - 'mild' controlling motivation in the form of suggestions from others can lead to increased autonomy satisfaction if options are revealed that one had not previously considered and one feels free to choose these options <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - absence of controlling motivation (not doing what everyone expected me to do, giving me the option) is conceptually similar to autonomous satisfaction (incredibly liberating academically and personally, I've been making my own choices)
Relationships Between Achievement Goal Theory Constructs and Outcomes		
Mastery-Approach Goals / Performance-Approach Goals	<ul style="list-style-type: none"> - But what you actually know and can learn and can apply is a hundred times more important than what some piece of paper says - to do as well as I possibly can - I couldn't do better than someone at Math, so what I had to teach myself and kind of learn was, you can only do as well as you possibly can ... There's no point in comparing yourself to someone else school's always been easy for me, except for math, so, my goal when it comes to any sort of academic thing is to do as well as I possibly can ... if I haven't done something well, I know it, and... my goal is to do as best as I possibly can with the resources that I have - [by 'do as well as I can', I mean] Both [in terms of grades and in terms of learning the material] you know, a good grade doesn't always necessarily reflect what you ... take away from the class - [someone] hiring you [is] not going to be like 'oh, you scored 3% less than [another student]' - no one's going to care, so don't, what's the point ... if you know you didn't do the best that you did, I understand being frustrated with yourself, but if you're like 'oh I didn't do as good as so and so' like who cares ... they're not, you ... what they get is irrelevant to your mark, you just have to concentrate on yourself because if you invest so much energy into, in other people, what are you investing in yourself? in your own academic marks? So I still am kind of competitive, like if I do get a better mark than someone I'm like 'yea!', but if I don't, I'm kind of like 'ooh', but it's not as big of a deal as it use to be for me - University is an institution of learning and so I do want to learn, I do want to absorb as much as I can, and I do want to do well, because as much as I like to think your marks don't matter, it's your talent, your marks do matter ... you have to pass, you have to get good marks if you're going to get your degree - if you're going to get hired - I'm just going to continue to learn and that I will continue to better myself and I will be able to achieve more - a lot of the time, if I feel personally fulfilled, that could be enough to make me feel like I'm succeeding, to continue doing it - even if the mark is bad, but most of the time, having a good mark is really motivating 	<p>RECIPROCAL RELATIONSHIP Mastery-approach goals --> Performance-approach goals (positive relationship)</p> <ul style="list-style-type: none"> - believes that obtainment of mastery goals (continue to learn) is related to obtainment of performance goals (achieve more) <p>Performance-approach goals --> Mastery-approach goals (negative relationship)</p> <ul style="list-style-type: none"> - not obtaining performance goals (doing worse than others) in a specific subject (math) is related to setting mastery goals (do as well as you can) in that course; however, focus still on demonstration of competence, but comparator is self rather than others <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - "to do as well as I possibly can": goal is demonstration of competence but compares this to himself - defines obtainment of mastery goals in terms of performance goals <p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - sets both performance (do well, get good marks, pass class, get degree) and mastery goals (to learn, absorb information) simultaneously but feels mastery goals are more important: "what you actually know and can learn and can apply is a hundred times more important than what some piece of paper says" - differentiates between goal types: "[by 'do as well as I can', I mean] Both [in terms of grades and in terms of learning the material] you know, a good grade doesn't always necessarily reflect what you ... take away from the class" - believes focus should be on obtaining mastery goals: "you just have to concentrate on yourself because if you invest so much energy into, in other people, what are you investing in yourself? in your own academic marks?"; BUT defines obtainment of mastery goals in terms of performance goals <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - obtainment of both goal types is related to increased competence satisfaction and autonomous motivation; but, in the absence of performance goal obtainment (high marks), obtainment of mastery goals continues to relate to increased competence and motivation - believes not obtaining mastery goals (not doing the best you can) is related to poor well-being (frustration) but not obtaining performance goals should not matter; however, obtaining both types of goals is related to positive well-being
Mastery-Goals / Achievement	<ul style="list-style-type: none"> - a good grade doesn't always necessarily reflect ... what you take away from the class - if I feel personally fulfilled, that could be enough to make me feel like I'm succeeding ... even if the mark is bad 	<p>NO RELATIONSHIP</p> <ul style="list-style-type: none"> - believes that academic achievement (grades) do not reflect obtainment of mastery goals ("what you take away from the class") <p>OTHER COMMENTS</p> <ul style="list-style-type: none"> - believes obtainment of mastery goals (feeling personally fulfilled) is more important than the actual mark obtained

Mastery-Goals / Well-being	<ul style="list-style-type: none"> - if you know you didn't do the best that you did, I understand being frustrated with yourself 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Mastery-approach Goals --> Wellbeing (positive relationship)</p> <ul style="list-style-type: none"> - not obtaining mastery goals (not doing the best that you can) is related to decreased well-being (frustration with yourself)
Perf.-Goals / Dedication	<ul style="list-style-type: none"> - I have very distinct goals in my head, and if I don't make those goals, I don't know what I'm going to do 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Performance-approach goals --> Dedication (positive relationship)</p> <ul style="list-style-type: none"> - not obtaining performance goals is related to decreased dedication: "if I don't make those goals, I don't know what I'm going to do"
Performance-Approach Goals / Achievement	<ul style="list-style-type: none"> - My goal is always, like in the beginning, to get a good mark. And then in the end, like I won't necessary get the mark that I thought I was going to get. I'm still trying to adjust, like apparently a 70 is really good in university - I do want to do well, because as much as I like to think your marks don't matter, it's your talent, your marks do matter ... you have to pass, you have to get good marks if you're going to get your degree - when you get some of your first marks back, you know, and you're like 'wow I really suck at writing essays' - if I don't do so well in one class, but I do better in another class and it gives me a good average 	<p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - uses academic achievement (specific numerical marks) as indicators of having obtained performance goals (demonstrated competence relative to others): "my goal is always to get a good mark .. apparently 70 is really good in university"; "I do want to do well, because ...your marks do matter"
Performance-Approach Goals / Well-being	<ul style="list-style-type: none"> - if I haven't done something well, I know it ... if I get a bad mark it's my own fault, and I get mad at myself - I'm competitive, and I use to be way more competitive, but in the end, I think it just brings a lot of negative mental stress - I still am kind of competitive, like if I do get a better mark than someone I'm like 'yea!', but if I don't, I'm kind of like 'ooh', but it's not as big of a deal as it use to be for me - you get knocked down a little bit ... when you get some of your first marks back ... you're like 'wow I really suck at writing essays' - sometimes if I get a grade and I'm disappointed in it, I'll feel like - I'll be like 'oh man, I suck' - when I got this essay back and I did really really bad, I was like a little devastated because, like I always thought that I was really good at - [goals to do well] really relate to your well-being because ... besides my personal life, I'm also ADD with anxiety problems ... getting ... all that sorted out and you know, medicated ... you have to be positive, in a mentally and physically positive area to be able to ... achieve what you want to do ... I can not imagine doing university without my ADD medication, it would be awful ... I just think it's a lot healthier getting my stuff sorted out then trying to compare myself to other people - if I don't do so well in one class, but I do better in another class and it gives me a good average, that's fine, that's okay 	<p>RECIPROCAL RELATIONSHIP</p> <p>Performance-approach goals --> Wellbeing (goal setting: negative relation; goal obtainment: positive relation)</p> <ul style="list-style-type: none"> - not obtaining performance goals (haven't done something well, get a bad mark, did really bad) is related to decreased well-being (I get made at myself, get knocked down, disappointment, devastated) - obtaining performance goals is related to increased wellbeing: "if I do get a better mark than someone I'm like 'yea!'" - obtaining performance goals after having not obtained them maintains well-being: "if I don't do so well in one class, but I do better in another class and it gives me a good average, that's fine, that's okay" - desire to set performance goals (I'm competitive) is related to decreased well-being (brings a lot of negative mental stress) <p>MEDIATED by competence satisfaction: not obtaining goals appears to have a stronger impact on negative well-being if competence satisfaction is high: "[when] I did really really bad [on an essay], I was like a little devastated because, like I always thought that I was really good at [writing essays]"</p> <p>Wellbeing -> Performance-approach goals (positive relationship)</p> <ul style="list-style-type: none"> - believes positive well-being is needed in order to obtain perf. goals: "you have to be positive, in a mentally and physically positive area to be able to ... achieve what you want to do" <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - acknowledging that performance goals lead to negative well-being does not prevent one from setting performance goals ("I still am competitive") but does cause them to attribute less importance to them: "it's not as big of a deal as it use to be for me"

Relationships Between Achievement Goal Theory and Self-Determination Theory Constructs		
Mastery-Approach Goals / Intrinsic Motivation	<ul style="list-style-type: none"> - it's always just been since I was little, something I've enjoyed to do is learning about new things and being curious and you can't satisfy curiosity unless you're actively trying to learn about things - Mhmm, yea, yea [the actual learning within university is interesting and enjoyable to me] - the people in my class were so diverse and this class encouraged discussion so you got to learn a lot of things from people that you didn't know before - the experience was incredibly enriching for me, I learned a lot about writing essays for university 	<p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - is intrinsically motivated to learn, enjoys learning; enjoyment may be a result of learning OR learning may be a result of enjoying activities that lead to learning; most likely reciprocal <p>RECIPROCAL RELATIONSHIP</p> <ul style="list-style-type: none"> - Intrinsic Motivation --> Mastery-approach Goals (positive relationship) - desire to obtain intrinsic motivation is related to setting mastery goals - Mastery-approach Goals --> Intrinsic Motivation (positive relationship) - obtainment of mastery goals (learn knew information) is related to increased intrinsic motivation (incredibly enriching)
Mastery-Goals / Autonomou s Mot.	<ul style="list-style-type: none"> - I think it's important ... I think everyone should learn things - what you actually know and can learn and can apply is a hundred times more important than what some piece of paper says - I learned a lot about writing essays for university ... what I learned in high school ... did not prepare me at all ... the personal experiences that I got from [English class], the friends I made, the people I got to talk to and the experience that I had ... having a personal relationship with a prof ... that is also very important I think 	<p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - believes obtaining mastery goals is important; autonomously motivated to obtain mastery goals: "it's important...everyone should learn"; "what you actually know and can apply is ... more important"; "I learned a lot about writing essays ... this is also very important, I think" - no clear distinction between variables; no evidence that one variable influences the other
Mastery-Goal/ Contr. Mot	<ul style="list-style-type: none"> - my parents have always encouraged my brothers and I to be - to try to learn and to be open to outside influences 	<p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - experiences controlling motivation to obtain mastery goals, but no evidence that variables influence each other: "my parents have always encouraged my brothers and I to .. learn and to be open"
Mastery-Approach Goals / Competence Satisfaction	<ul style="list-style-type: none"> - I'm terrible at math, I almost failed math, my teacher went to my parents like 'you better get him tested for a learning disability', because I was so bad ... I had a 40 something in Math ... I couldn't do better than someone at Math, so what I had to teach myself and kind of learn was, you can only do as well as you possibly can - school's always been easy for me, except for math, so, my goal when it comes to any sort of academic thing is to do as well as I possibly can - the experience was incredibly enriching for me, I learned a lot about writing essays for university because, what I learned in high school ... did not prepare me at all - and I thought I was going to be prepared - no - I am confident because I learn from my mistakes and I get - I do have strong skills that will help me academically, and I feel confident that I'm just going to continue to learn and that I will continue to better myself 	<p>RECIPROCAL RELATIONSHIP</p> <p>Competence Satisfaction --> Mastery-approach Goals (positive for general competence; negative for specific comp. ?)</p> <ul style="list-style-type: none"> - low competence satisfaction toward a specific subject is related to setting mastery goals (comparing performance to one's personal best rather than to others) in that subject <p>MEDIATED by not obtaining performance goals: "I'm terrible at math, I almost failed math, ... I was so bad ... I had a 40 something in Math ... I couldn't do better than someone at Math, so what I had to teach myself ... was, you can only do as well as you possibly can"</p> <ul style="list-style-type: none"> - high general competence satisfaction (school's always been easy for me) is also related to setting mastery goals (comparing performance to one's personal), but focus remains on demonstration of competence: to do as well as I can <p>Mastery-approach Goals --> Competence Satisfaction (positive relationship)</p> <ul style="list-style-type: none"> - obtainment of mastery goals is related to increased competence satisfaction: "I am confident because I learn from my mistakes" <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - low competence satisfaction may be needed to recognize obtainment of mastery goals: "I learned a lot about writing essays for university because, what I learned in high school ... did not prepare me at all"

Performance-Approach Goals / Intrinsic Motivation	<ul style="list-style-type: none"> - I didn't get the best mark academically I could of gotten in my English class last semester ... but, the experience was incredibly enriching - they don't enjoy it and that ... impedes your competence ... it makes it harder to succeed because if you don't enjoy it and you don't feel like you are succeeding, even if you are ... it's sort of like a mental trap and it holds you back 	<p>UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Performance-approach Goals (positive relationship) - low intrinsic motivation is related to decreased obtainment of performance goals MEDIATED by competence satisfaction: "they don't enjoy it and that ... impedes your competence ... it makes it harder to succeed because if you don't enjoy it and you don't feel like you are succeeding"</p> <p>NO RELATIONSHIP Performance-approach Goals -> Intrinsic Motivation - low perf. goals (didn't get the best mark) is not related to decreased intrinsic mot. (but the experience was incredibly enriching)</p>
Performance-Approach Goals / Autonomous Motivation	<ul style="list-style-type: none"> - what you have on paper paper is important for say like getting a job or whatever, because they're going to look at what you have on paper. - I didn't get the best mark academically I could of gotten in my English class last semester ... but, the experience was incredibly enriching for me, I learned a lot about writing essays for university because, what I learned in high school ... did not prepare me at all ... the personal experiences that I got from that, the friends I made, the people I got to talk to and the experience that I had ... having a personal relationship with a prof ... that is also very important I think - no one's going to be like - if they're hiring you, they're not going to be like 'oh, you scored 3% less than [another student]' - no one's going to care, so don't, what's the point of that - I do want to do well, because as much as I like to think your marks don't matter, it's your talent, your marks do matter ... you have to pass, you have to get good marks if you're going to get your degree - if you're going to get hired ... you still need to do well to succeed in other people's eyes, especially people who are potentially going to be hiring you for something - so that's important. - most of the time, having a good mark is really motivating - I need to go to school to complete those things and I can't do it - even if I got hired without the education, I wouldn't know what to do because I didn't take any of the classes, so it doesn't work out - if I don't do so well in one class, but I do better in another class and it gives me a good average, that's fine, that's okay, because a lot of these classes I'm taking right now really don't matter, I just have to transfer them to the U of R, and focus on the film classes when I get there 	<p>RECIPROCAL RELATIONSHIP Autonomous Motivation --> Performance-approach Goals (positive relationship) - high autonomous motivation (belief that attending courses and obtaining a degree is important to one's future) causes one to set performance goals: "I do want to do well, because as much as I like to think your marks don't matter, it's your talent, your marks do matter ... you have to pass, you have to get good marks if you're going to get your degree - if you're going to get hired ... you still need to do well to succeed in other people's eyes, especially people who are potentially going to be hiring you for something - so that's important." - low autonomous motivation toward specific classes (these classes I'm taking right now really don't matter) is related to lower performance goals within those classes</p> <p>Performance-approach Goals -> Autonomous Motivation (positive relationship) - obtainment of performance goals is related to increased autonomous motivation: "having a good mark is really motivating"</p> <p>CONCEPTUAL SIMILARITY - believes obtaining certain performance goals (i.e. high marks, passing) is important; autonomously motivated to obtain performance goals: "what you have on paper is important for ... getting a job"; "your marks do matter .. you have to get good marks if you're going to get your degree - if you're going to get hired ... so that's important" BUT other performance goal (i.e. outperforming others) are not: "if they're hiring you ... no one's going to care [that you outperformed another student]"</p> <p>- no clear distinction between variables; no evidence that one variable influences the other</p> <p>CONTEXTUAL RELATIONSHIP - high autonomous motivation ([academic activities are] also very important I think) and low obtainment of performance goals (I didn't get the best mark) can co-exist, but no evidence that the variables influence each other</p>
Perf.-Goals / Contr. Mot	<ul style="list-style-type: none"> - To do as well as I possibly can, because you know, when, all through school when you're growing up, you're kind of taught, you have to do better than everyone else 	<p>CONCEPTUAL SIMILARITY - experiences controlling motivation to obtain performance goals, but no evidence that variables influence each other: "you're kind of taught, you have to do better than everyone else"</p>

<p>Performance-Approach Goals / Competence Satisfaction</p>	<ul style="list-style-type: none"> - I'm terrible at math, I almost failed math, my teacher went to my parents like 'you better get him tested for a learning disability', because I was so bad ... I had a 40 something in Math ... I couldn't do better than someone at Math - school's always been easy for me, except for math, so, my goal when it comes to any sort of academic thing is to do as well as I possibly can - I didn't get the best mark academically I could of gotten in my English class ... but, the experience was incredibly enriching for me, I learned a lot about writing essays for university - because, what I learned in high school ... did not prepare me at all - and I thought I was going to be prepared - no - if I don't think that I can do it, I probably won't try it ... if I don't feel that I can succeed at something, I'm very reluctant to do it ... you know, you don't want to set yourself up for failure, I think everyone kind of has like some sort of that feeling ... I don't do things that I feel I'm going to fail at - it impedes your competence, you know and it makes it harder to succeed because if you don't enjoy it and you don't feel like you are succeeding, even if you are - because that's something I've always thought I was really really good at, and then when I got this essay back and I did really really bad, I was like a little devastated because, like I always thought that I was really good at 	<p>RECIPROCAL RELATIONSHIP</p> <p>Competence Satisfaction --> Performance-approach Goals (positive relationship)</p> <ul style="list-style-type: none"> - low competence satisfaction is related to not setting performance goals: "I'm terrible at math ... I couldn't do better than someone at Math"; "if I don't feel that I can succeed at something, I'm very reluctant to do it ... you don't want to set yourself up for failure" - high competence satisfaction is related to setting performance goals: "school's always been easy for me ... so, my goal when it comes to any sort of academic thing is to do as well as I possibly can" (but the comparator is still self rather than others) <p>Performance-approach Goals --> Competence Satisfaction (positive relationship, conditional)</p> <ul style="list-style-type: none"> - not obtaining performance goals (almost failed, 40%) in a specific subject is related to reduced competence satisfaction in that subject (I'm terrible at math) <p>MEDIATED by mastery goals: if mastery goals are obtained, competence satisfaction is maintained even though performance goals were not obtained: "I didn't get the best mark academically ... but ... I learned a lot about writing essays for university [and now feel prepared]"</p> <ul style="list-style-type: none"> - obtaining performance goals is related to increased competence <p>MEDIATED by intrinsic motivation: if one obtains performance goals but does not enjoy the course, they will not feel more competent: "if you don't enjoy it ... you don't feel like you are succeeding, even if you are"</p> <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - uses un-obtained performance goals as examples of low competence satisfaction (not always a clear distinction between the variables) <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - competence satisfaction mediates performance-goal-well-being relationship such that not obtaining a performance goal has an especially strong impact on well-being if one previously believed they were competent in the area - Competence Satisfaction --> Performance-approach Goals relationship is universal: "think everyone kind of has like some sort of that feeling"
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E-8. VARIABLE MATRIX FOR INTERVIEWEE A4

Explanations of Constructs as Experienced by Interviewee A4

Construct	Explanation	Comments
Intrinsic Motivation	<ul style="list-style-type: none"> - It's more of a means to an end, like I use it as a tool rather than like personal enjoyment. - I enjoy getting good marks but that's more the outcome rather than getting to it. Like, I feel satisfaction in getting that but it doesn't really - it's not everything - like there's enjoyment in that but it's not like - like, I enjoy sports so [academic activities are] not that type of enjoyment for me ... it's not really the same enjoyment to me as say playing sports - classes that I was taking, they didn't really engage me - they weren't something that I wanted to do. And then when I found something that really interested me and something that I could see that it could take me somewhere, It wasn't just an arbitrary class that I had to take. It was more kind of orientated to what I wanted to do, so... I had more motivation to do it then... 	<p>KEYWORDS for intrinsic motivation present: "personal enjoyment", "enjoy", "interested"</p> <p>KEYWORDS for intrinsic motivation not present: "means to an end", "didn't engage me"</p> <p>FOSTERED by: - courses related to long term future goals "could take me somewhere"</p> <p>OTHER COMMENTS: - Very context specific i.e. can be intrinsically motivated towards some classes and not others at the same time</p> <p>- Compares intrinsic motivation towards academics to intrinsic motivation toward sports; possibly lowers reported enjoyment for academia by holding it to a high relative standard</p> <p>CONCLUDED "LEVEL": LOW</p>
Autonomous Motivation	<ul style="list-style-type: none"> - [I engage in academic activities] to get the desired outcome that I want out of the class which is to obtain a degree in the end - I just know that I need the classes that I'm taking... some of the content that I see directly relates to what I want to do, so I find it beneficial - It's my own drive for sure and motivation of myself - if it wasn't something that I was - a goal that I was trying to get to, I probably wouldn't do it, but since it's kind of something I know I need, something that's useful, I'll do it and you can't - it's not really the same enjoyment to me as say playing sports - a lot of these classes do pertain to what I want to do and a lot of the knowledge based in this is something that your going to need to retain and learn... you're first level classes are always basic, but they're always building blocks to something else and they do have some good core values in there and good teaching 	<p>KEYWORDS for autonomous motivation present: - "to get the desired outcome that I want" - "I find it beneficial" - "my own drive" - "motivation of myself" - "something I know I need", "going to need" - "something that's useful"</p> <p>FOSTERED by: - Belief that academic activities are necessary to obtain major life goals (i.e. degree) - Recognizing benefit of knowing and understanding content for future courses and endeavors that build on this content - Belief that engaging in academic activities directly enhances understanding of material</p> <p>CONCLUDED "LEVEL": HIGH</p>
Controlling Motivation	<ul style="list-style-type: none"> - with different people you kind of - if you're sitting with them all the time, you kind of just - you know - they notice you're not there so there is kind of a pressure to show up in class - the teachers academically with having attendance and class contribution as part of your mark [also socially pressure me to attend] 	<p>KEYWORDS for controlling motivation present: - "pressure to show up"</p> <p>FOSTERED by: - Peer pressure to attend (i.e. people he sits with will notice if he's not there) - Direct rewards for attendance such as attendance or participation marks</p> <p>CONCLUDED "LEVEL": MODERATE</p>
Mastery-Approach Goals	<ul style="list-style-type: none"> - [my goal is] to basically gain knowledge that I can use after I leave here - Yea, yea.. [I really strive to understand the material in my courses] - understanding and comprehending most of the course content - my number one reason for being here is to obtain and to figure out all that I can out of the courses - having the basis of understanding how to get there 	<p>KEYWORDS for setting mastery goals: - "gain knowledge that I can use" - "understanding and comprehending most of the content" - "obtain and figure out all I can" - "have the basis of understanding"</p> <p>FOSTERED by: - desire to be able to "use" education after graduation</p> <p>OTHER COMMENTS: - unlike other students, goal is to learn "most" of the content and understand how to get there; thus, mastery goals may exist to varying degrees similar to performance goals</p> <p>- although states goals as performance goals (i.e. 80%), when asked directly, main goals appear to be mastery</p> <p>CONCLUDED "LEVEL": HIGH</p>

Performance-Approach Goals	<ul style="list-style-type: none">- I just have a goal in mind of an 80 so that's my goal... <u>it's kind of an arbitrary number but it's just something that you look forward to</u> - it's kind of defined, realistic- <u>[doing better than other students] doesn't affect me. I'm not there for them. I'm there for myself. I have my own goals. And being better than the rest is just not my goal because it doesn't really affect me at all.</u>- I just got the bigger goal in mind of... getting a good mark	KEYWORDS for setting performance goals: <ul style="list-style-type: none">- "80... an arbitrary number... it's defined"- "getting a good mark" KEYWORDS for not setting performance goals: <ul style="list-style-type: none">- "an arbitrary number" [e.g. not based on class average or comparison to others]- "being better than the rest is just not my goal" OTHER COMMENTS: <ul style="list-style-type: none">- Main goal is to obtain an absolute mark (e.g. 80) regardless of what other students get; focused on demonstration of competence but not on comparison with others.- Currently unclear whether theoretical definition requires comparison to other students AND demonstration of competence, or one or the other; appears as though these two components can be independent of each other CONCLUDED "LEVEL": MODERATE																												
Autonomy Satisfaction	<u>I'm not exactly my normal self when I'm in class</u>	KEYWORDS for low autonomy satisfaction: <ul style="list-style-type: none">- "not exactly my normal self" OTHER COMMENTS: <ul style="list-style-type: none">- does not discuss freedom to engage in courses as he chooses; only discusses lack of autonomy to be himself at university CONCLUDED "LEVEL": LOW																												
Competence Satisfaction	<ul style="list-style-type: none">- <u>I've took classes and I didn't do so well on them for certain reasons</u> and I found different ways to kind of excel in class and do better and it seems to be working and so I just follow those paths and then it seems to work out for me- just past experience, is number one [reason I have a sense of competence]- knowledge, skills and abilities	KEYWORDS for high competence satisfaction: <ul style="list-style-type: none">- "excel in class", "do better", "knowledge, skills and abilities" KEYWORDS for low competence satisfaction: <ul style="list-style-type: none">- "didn't do so well" FOSTERED by: past satisfaction of competence OTHER COMMENTS: <ul style="list-style-type: none">- speaks quite vaguely about students' competence in general rather than his own specific competence satisfaction- emphasizes improvement but does not elaborate on courses in which competence was not satisfied CONCLUDED "LEVEL": MODERATE																												
Academic Dedication	<ul style="list-style-type: none">- the desired outcome that I want... is to obtain a degree in the end- I just got the bigger goal in mind of just like getting a degree	KEYWORDS for high dedication: <ul style="list-style-type: none">- "desired outcome.. is to obtain a degree in the end"- "bigger goal in mind of ... getting a degree" FOSTERED by: having clear career goals CONCLUDED "LEVEL": HIGH																												
Academic Achievement	in previous classes where my marks weren't as good	KEYWORDS for high achievement: <ul style="list-style-type: none">- "good" adjective used for satisfactory grades OTHER COMMENTS: <ul style="list-style-type: none">- relative comparison used "weren't as good"- may assume achievement was low in the past but has improved more recently CONCLUDED "LEVEL": MODERATE																												
Well-being	you kind of have a well rounded type life then instead of having, say just all school or just all work or just all this - You're going to really be lacking in areas and I think there's just a lot more fulfillment when you have everything... family and friends [also contribute to my well-being]	KEYWORDS for high wellbeing: "fulfillment" KEYWORDS for low wellbeing: "lacking in areas" FOSTERED by: things outside of academia: friends, family OTHER COMMENTS: <ul style="list-style-type: none">- discusses well-being vaguely and in general terms rather than his own specific well-being CONCLUDED "LEVEL": MODERATE																												
Relationships Between Constructs as Experienced by Interviewee A4																														
NO DATA for the following relationships: <table><tr><td>Controlling Motivation / Academic Dedication</td><td>Performance-Approach Goals / Competence Satisfaction</td></tr><tr><td>Autonomous Motivation / Academic Achievement</td><td>Performance-Approach Goals / Autonomy Satisfaction</td></tr><tr><td>Controlling Motivation / Academic Achievement</td><td>Performance-Approach Goals /Controlling Motivation</td></tr><tr><td>Intrinsic Motivation / Well-being</td><td>Mastery-Approach Goals /Controlling Motivation</td></tr><tr><td>Autonomous Motivation / Well-being</td><td>Mastery-Approach Goals /Intrinsic Motivation</td></tr><tr><td>Controlling Motivation / Well-being</td><td>Performance-Approach Goals / Well-being</td></tr><tr><td>Autonomy Satisfaction/ Academic Dedication</td><td>Performance-Approach Goals / Academic Dedication</td></tr><tr><td>Competence Satisfaction / Academic Dedication</td><td>Mastery-Approach Goals / Academic Dedication</td></tr><tr><td>Autonomy Satisfaction / Academic Achievement</td><td>Mastery-Approach Goals / Well-being</td></tr><tr><td>Autonomy Satisfaction / Well-being</td><td>Controlling Motivation / Competence Satisfaction</td></tr><tr><td>Competence Satisfaction/ Well-being</td><td>Autonomy Satisfaction / Competence Satisfaction</td></tr><tr><td>Intrinsic Motivation / Controlling Motivation</td><td>Controlling Motivation / Autonomy Satisfaction</td></tr><tr><td>Autonomous Motivation / Controlling Motivation</td><td>Autonomous Motivation / Autonomy Satisfaction</td></tr><tr><td>Intrinsic Motivation / Autonomy Satisfaction</td><td>Intrinsic Motivation / Competence Satisfaction</td></tr></table>			Controlling Motivation / Academic Dedication	Performance-Approach Goals / Competence Satisfaction	Autonomous Motivation / Academic Achievement	Performance-Approach Goals / Autonomy Satisfaction	Controlling Motivation / Academic Achievement	Performance-Approach Goals /Controlling Motivation	Intrinsic Motivation / Well-being	Mastery-Approach Goals /Controlling Motivation	Autonomous Motivation / Well-being	Mastery-Approach Goals /Intrinsic Motivation	Controlling Motivation / Well-being	Performance-Approach Goals / Well-being	Autonomy Satisfaction/ Academic Dedication	Performance-Approach Goals / Academic Dedication	Competence Satisfaction / Academic Dedication	Mastery-Approach Goals / Academic Dedication	Autonomy Satisfaction / Academic Achievement	Mastery-Approach Goals / Well-being	Autonomy Satisfaction / Well-being	Controlling Motivation / Competence Satisfaction	Competence Satisfaction/ Well-being	Autonomy Satisfaction / Competence Satisfaction	Intrinsic Motivation / Controlling Motivation	Controlling Motivation / Autonomy Satisfaction	Autonomous Motivation / Controlling Motivation	Autonomous Motivation / Autonomy Satisfaction	Intrinsic Motivation / Autonomy Satisfaction	Intrinsic Motivation / Competence Satisfaction
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Intrinsic Motivation / Autonomy Satisfaction	Intrinsic Motivation / Competence Satisfaction																													
Relationships Between Outcome Variables and Motivation Types																														

Intrinsic Motivation / Academic Dedication	<ul style="list-style-type: none"> - if it wasn't something that I was - a goal that I was trying to get to [goal to get my degree], I probably wouldn't do it, but since it's kind of something I know I need, something that's useful, I'll do it and you can't - it's not really the same enjoyment to me as say playing sports - classes that I was taking, they didn't really engage me - they weren't something that I wanted to do [so I dropped out]. And then when I found something that really interested me... I had more motivation to do it 	<p>UNIDIRECTIONAL RELATIONSHIP: Intrinsic Motivation --> Dedication (positive relationship) - when no intrinsic motivation, he dropped out of school (least dedication); but, after finding a program in which he was intrinsically motivated, his dedication increased</p> <p>OTHER COMMENTS: - Intrinsic motivation need only be moderately high to increase dedication (i.e. not the same enjoyment as playing sports, but still increases dedication)</p>
Autonomous Motivation / Academic Dedication	<ul style="list-style-type: none"> - [I engage in academic activities]to get the desired outcome that I want out of the class which is to obtain a degree in the end - if it wasn't something that I was - a goal that I was trying to get to [goal to get my degree], I probably wouldn't do it, but since it's kind of something I know I need, something that's useful, I'll do it and you can't - it's not really the same enjoyment to me as say playing sports - ... when I found ... something that I could see ... take me somewhere, It wasn't just an arbitrary class that I had to take. It was more kind of orientated to what I wanted to do, so... I had more motivation to do it then 	<p>RECIPROCAL RELATIONSHIP Autonomous Motivation --> Dedication (positive relationship) - if autonomously motivated because getting degree is important to chosen life goal, then highly dedicated to obtain degree; Dedication -> Autonomous Motivation (positive relationship) - if highly dedicated to complete degree, then autonomously motivated to complete degree - High dedication enhances autonomous motivation even if lacking intrinsic motivation</p> <p>OTHER COMMENTS: - perhaps partially due to conceptual similarity (e.g. doesn't seem to differentiate motivation to get degree from dedication to get degree)</p>
Intrinsic Mot. / Achievement	I enjoy getting good marks	<p>UNIDIRECTIONAL RELATIONSHIP: Achievement --> Intrinsic Motivation (positive relationship) - Obtaining "good marks" is enjoyable, suggesting that high achievement promotes intrinsic motivation</p>
Relationships Between Outcome Variables and Needs Satisfaction		
Competence Sat. / Achievement	Yes [competence and grades are related], unless there's like a learning inability or something	<p>CONCEPTUAL SIMILARITY - demonstrates general belief that competence and achievement are related; however, discusses this in general and vaguely rather than as it specifically relates to him, suggesting that perceived relationship may simply be due to conceptual similarity</p>
Relationships Between Motivation Types and Needs Satisfaction		
Intrinsic Motivation / Autonomous Motivation	<ul style="list-style-type: none"> - if it wasn't something that I was - a goal that I was trying to get to [goal to get my degree], I probably wouldn't do it, but since it's kind of something I know I need, something that's useful, I'll do it and you can't - it's not really the same enjoyment to me as say playing sports - classes that I was taking, they didn't really engage me - they weren't something that I wanted to do [so I dropped out]. And then when I found something that really interested me and something that I could see that it could take me somewhere, It wasn't just an arbitrary class that I had to take. It was more kind of orientated to what I wanted to do, so... I had more motivation to do it then 	<p>CONTEXTUAL RELATIONSHIP - appear to exist in same context but not necessarily related, i.e: - If autonomously motivated, will engage in academic activities regardless whether intrinsically motivated or not - if low autonomous motivation (don't see class as important for future) likely to also have low intrinsic motivation (not find it engaging) - Intrinsic and autonomous motivation combined (interest and importance) may lead to most positive outcomes i.e. dedication</p>
Autonomous Motivation / Competence Satisfaction	<ul style="list-style-type: none"> - I've took classes and I didn't do so well on them for certain reasons and I found different ways to kind of excel in class and do better and it seems to be working and so I just follow those paths and then it seems to work out for me - Like I see that a lot of these classes do pertain to what I want to do and a lot of the knowledge based in this is something that your going to need to retain and learn [in order to be competent]. Like, these are obviously basic - like, you're first level classes are always basic, but they're always building blocks to something else and they do have some good core values in there and good teaching [which is why I attend them] 	<p>RECIPROCAL RELATIONSHIP Autonomous Motivation --> Competence Satisfaction (positive relationship) - if one is autonomously motivated to satisfy need for competence (i.e. feels it is important to learn the material), then being autonomously motivated leads to competence satisfaction Competence Satisfaction --> Autonomous Motivation (negative relationship) - low competence satisfaction in a class, increases his autonomous motivation to improve OTHER COMMENTS: - believes that engagement will lead to competence satisfaction</p>
Relationships Between Achievement Goal Theory Constructs and Outcomes		

Mastery- Approach Goals / Performance -Approach Goals	[my goals are] the reason why I'm working towards an 80 I know that an 80 would be understanding and comprehending most of the course content	CONCEPTUAL SIMILARITY - No clear distinction e.g. performance goal (80%) used as indicator of having obtained mastery goals (i.e. comprehending the course content) - despite initially stating performance goals, describes mastery goals as more important or more valued - may be result of desirability bias (this student generally speaks vaguely and gives hypothetical explanations rather than discussing his own thoughts directly, suggesting a desire to appear socially empathetic/like-able rather than to reveal personal information; or, a desire to respond quickly without engaging in personal reflection)
Mastery- Approach Goals / Achievement	- [my goals are] the reason why I'm working towards an 80 I know that an 80 would be understanding and comprehending most of the course content - Yea, I think so [that I achieve the grades I do because I set appropriate goals]	UNIDIRECTIONAL RELATIONSHIP Mastery goal --> Achievement (positive relationship) - obtaining mastery goals (understanding material) believed to lead to high marks CONCEPTUAL SIMILARITY - high achievement seen as indicator of obtaining mastery goal
Perf.-Goals / Achie.	I just have a goal in mind of an 80 so that's my goal.	CONCEPTUAL SIMILARITY - Performance goals defined in terms of absolute marks
Relationships Between Achievement Goal Theory and Self-Determination Theory Constructs		
Mastery- Approach Goals / Autonomous Motivation	- if it wasn't something that I was - a goal that I was trying to get to, I probably wouldn't do it, but since it's kind of something I know I need, something that's useful, I'll do it - [my goals are] the reason why I'm working towards an 80 I know that an 80 would be understanding and comprehending most of the course content - a lot of these classes do pertain to what I want to do and a lot of the knowledge based in this is something that your going to need to retain and learn [which is why I attend them]	UNIDIRECTIONAL RELATIONSHIP Mastery-approach Goal --> Autonomous Motivation (positive relationship) - desire to achieve mastery goal "retain and learn" causes one to be autonomously motivated towards university; CONCEPTUAL SIMILARITY - mastery goals are seen as important and freely chosen, therefore autonomously motivated to obtain - one can be autonomously motivated to obtain mastery goals
Mastery- Approach Goals / Autonomy Sat.	- as far as being myself to engage in class - if I was myself, I wouldn't probably be having - like you know - like, I kind of have tunnel vision when I'm at school, so that I kind of can retain information - if I'm looking every direction you kind of miss a lot of things I find, so I kind of just like... I'm not exactly my normal self when I'm in class - you know, I'm just kind of doing this for this	UNIDIRECTIONAL RELATIONSHIP Autonomy Satisfaction --> Mastery-approach Goal (negative relationship) - feels that autonomy to be himself during courses is related to poor attainment of mastery goals; in order to obtain mastery goals, he chooses not to be himself, suggesting that autonomy to choose how to engage in courses is related to mastery goal attainment
Mastery- Approach Goals / Competence Satisfaction	- I'd say - yes, definitely goals [are related to my competence satisfaction], like [I set] realistic goals but still challenging goals, but also just the - having the basis of understanding how to get there... you can set goals but then I guess they wouldn't be realistic if you didn't have the knowledge, skills and abilities	UNIDIRECTIONAL RELATIONSHIP Competence Satisfaction --> Mastery-approach Goals (positive relationship) - competence satisfaction influences the specific mastery goals set such that he sets goals he feels competent to obtain e.g. "realistic" but "challenging" OTHER COMMENTS: - discusses this relationship in vague/hypothetical terms
Performance -Approach Goals / Intrinsic Mot.	I enjoy getting good marks	UNIDIRECTIONAL RELATIONSHIP Performance-approach Goals --> Intrinsic Motivation (conditional positive relationship) - Obtaining performance goal "getting good marks" is enjoyable, suggesting that forming performance goals promotes intrinsic motivation IF they are obtained
Performance -Approach Goals / Autonomous Motivation	- I just have a goal in mind of an 80 so that's my goal. So, what I do is if I don't make it then I have to try and make it up somewhere else, so if I'm ever below that I just have to - know I have to work harder next time to get a harder mark to equal everything	UNIDIRECTIONAL RELATIONSHIP Performance Goal --> Autonomous Motivation (negative relationship) - not obtaining performance goal increases autonomous motivation in order to obtain next performance goal to "equal everything" out CONCEPTUAL SIMILARITY - one can be autonomously motivated to obtain performance goals but these variables don't necessary influence each other

E-9. VARIABLE MATRIX FOR INTERVIEWEE C1

Explanations of Constructs as Experienced by Interviewee C1

Construct	Explanation	Comments
Intrinsic Motivation	<ul style="list-style-type: none"> - I don't enjoy - I don't know if it's I don't enjoy what I'm learning, or, I'm not sure if I just haven't created the best habits in studying, but I just, I don't look forward to studying and like I'm like, I find it really tedious and I just don't enjoy it, like, even talking to some people they're like "oh maybe school isn't for you" - but I don't enjoy it - I have an art class that I enjoy but I also feel like... for this specific art class it's a lot of extra work, like it's a print making class, so - um, it requires making a lot of mess which I don't really enjoy, but I mean I like art a lot, but I just don't feel like I could get a good job with something in that field necessarily. And then... I enjoy my psych class... but I chose the same professor that I had last semester because I think he's really interesting to listen to and he's kind of funny so that makes it enjoyable - the professor, how he can like teach it I guess [is what makes a course enjoyable] - it's just lack of interest in what I'm learning - I feel a little bit like - especially, like I'm in a Bio class right now and I'm just like, this isn't, this interesting me - if I was taking something that ... or maybe wasn't a university, like if I was doing something more like in trades... something different that I didn't feel pressured to be into, that I was more like "okay I just want to take these couple of courses here"... and I felt more like it was my decision or I was just doing it for myself, then I would probably be more interested in - if I was enjoying what I was learning and if I was interested I would probably be like all over the textbooks and all over the extra assignments, but I just don't... I have such a lack of interest that ... I'm not really like motivated - my lack of interest - I feel uninterested and negative I guess towards it - for me I guess, my art class - it's, it's something I enjoy because it's more of a hobby - I enjoy - I enjoy art - even if I didn't think it was going to be a career, it was just something for more like my personal interest outside of like a career or an education - or like my job. 	<p>KEYWORDS for intrinsic motivation present:</p> <ul style="list-style-type: none"> - I have an art class that I enjoy - I like art a lot - I enjoy my psych class - [the professor is] really interesting to listen to and he's kind of funny so that makes it enjoyable <p>KEYWORDS for intrinsic motivation not present:</p> <ul style="list-style-type: none"> - I don't enjoy what I'm learning - I don't look forward to studying ... I find it really tedious - I don't enjoy it - lack of interest in what I'm learning - [Biology] isn't interesting me - I have such a lack of interest that ... I'm not really like motivated - I feel uninterested and negative towards it <p>FOSTERED by:</p> <ul style="list-style-type: none"> - professors who are "interesting to listen to" and "funny" - feeling as though she is "doing it for myself" and making her own decisions regarding schooling - feeling that a field is "more of a hobby" (e.g. art) <p>HINDERED by:</p> <ul style="list-style-type: none"> - not creating "the best habits in studying" - belief that one can not obtain a "good job" in a field that one is intrinsically interested in - feeling pressured to be in university <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - course specific; intrinsically motivated toward Art and Psych classes but not others - intrinsic motivation toward art class not hindered by extra work or mess even though she does not like the mess - does not pursue courses for which she is intrinsically motivated because she does not see positive job opportunities in these areas <p>CONCLUDED "LEVEL": LOW</p>

Autonomous Motivation	<ul style="list-style-type: none"> - I feel like if I miss a class, then I won't necessarily make up that time outside of class, like even if I say, "oh I won't go to this lecture, but then I'll just study and make up the time at home", but then usually if I'm not like putting the time in in class then I find I won't make it up outside the class, so I usually try to make my lectures and try not to get in the habit of missing them - some of my professors won't put their notes up online or anything, so then I don't want to like miss the notes and then just fall super behind - I don't know if I would necessarily apply it to my life ... if I found something and I was like "this is what I want to do for the rest of my life" then I would be like "okay, I want to learn this, like I want to understand it" I just don't know if I've found what I want to do for the rest of my life - I think if I was in a course where I was like ... this is going to like help - or this is going to be where I want to learn - or what I want to do for the rest of my life, like if I felt like it was applying to something that I did everyday, or - then I would be - then I would want to actually understand it so that I could apply it to my everyday life or with like my job or my career - I feel that classes are important to my degree - I still attend a lot of my lectures because it ... I just feel better about my day if I know that I'm attending, so I think that - like, I'm still motivated to go to my classes - it just, it takes getting that motivation ... sometimes if there's like a deadline on something, like I know I procrastinate, but having a deadline, I'm like "okay I know I need to motivate myself do it, to get this done right before the deadline, so that has a lot to do with it" - I don't know what I would do at all if I wasn't in school ... I don't necessarily know what my degree is going to be, but I know that at least I'm here, and I guess like, my parents just want to make sure that I'm at least in school and I'm just trying to figure something out instead of like not in school, not doing anything. - I know that I need to like, at least maintain a decent average to like even to stay in university so like I don't want to fail - I don't know if this is what I want to be doing, I don't know if I should be in a different course, so then I'm just like confused and I get unmotivated ... I wish I could just see like a clearer path and I could just know what I'm going to end up doing, and be like "okay, this is worth it, like just push through it now" - I think that my motivation ... it's hard to get, but then once I can set my mind to something, I feel like I can accomplish much more. So I just... hopefully in my future education or in the courses that I take in the following years I can just like get a clear sense of what I want to do and then I know I'll be more motivated 	<p>KEYWORDS for autonomous motivation present:</p> <ul style="list-style-type: none"> - classes are important to my degree - I know I need to motivate myself do it, to get this done - I don't know what I would do at all if I wasn't in school - I need to maintain a decent average to stay in university - I don't want to miss the notes and fall super behind <p>KEYWORDS for autonomous motivation not present:</p> <ul style="list-style-type: none"> - [if the situation was different] then I would want to actually understand it - I attend my lectures because I just feel better about my day - I'm just trying to figure something out - I don't know if this is what I want to be doing - I'm confused and I get unmotivated - I just don't know if I've found what I want to do for the rest of my life <p>FOSTERED by:</p> <ul style="list-style-type: none"> - having a clear deadline at which time things must be completed - autonomously motivated to attend classes because she knows she will not be motivated to "make up that time outside of class" - belief that attending class is the only to not "fall super behind" - belief that attending university is better than "not doing anything": "at least I'm in school and trying to figure something out" - knowing that one must maintain a certain average to remain in university <p>HINDERED by:</p> <ul style="list-style-type: none"> - not having clear life / career goals: "I just don't know if I've found what I want to do for the rest of my life"; I wish I could just see like a clearer path and I could just know what I'm going to end up doing, and be like "okay, this is worth it, like just push through it now" - perception that course content is irrelevant to the rest of one's life and can not be applied in "everyday life" or career <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - appears as though being aware that one's autonomous motivation is lacking is a bit distressing; student almost apologize for not being autonomously motivated and hopes to feel this way in the future after finding a desired career <p>CONCLUDED "LEVEL": LOW</p>
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Controlling Motivation	<ul style="list-style-type: none"> - it's just like respect for like my parents who are paying for my university - I'm from out of province so [my parents are] not necessarily here to watch me to go class or tell me to go to class ... I can freely choose to go. And there's also a guilt factor, if I wasn't to go then I would be like "well, I'm wasting my time here and I'm wasting my parents efforts to help me get a good education" - I would feel like I'm letting them down if I didn't go - a lot of the people that I've met here that I spend time with, they're always "Ok, I'm going to do my homework, I'm going to classes" ... so I feel like if I wasn't going to my classes as well, I'd be like "well..." like sitting around being lazy ... I would just feel, I wouldn't feel good about myself not going, so I guess in a sense, like I also feel like my friends would be like "well what are you doing here?" so I guess that's like the social pressure of it - I guess from like from teachers and stuff, they're like "you should come to my lectures, like it's important" - I feel like in this day you just need an education to get a good job and I don't want to end up without a good job so I know that it's what I have to do, but I don't enjoy it - my parents are definitely like "you need an education" like, and they wouldn't support me not getting one - if I was taking something that maybe wouldn't, or maybe wasn't a university, like if I was doing something more like in trades ... something different that I didn't feel pressured to be into, that I was more like "okay I just want to take these couple of courses here"... and I felt more like it was my decision or I was just doing it for myself, then I would probably be more interested - when I was at home, when I would come home from school, my parents were like "do your homework, go do your homework" and I think in a sense that kind of made me feel like "no, I'm not going to do it, you're telling me to do it so I don't want to". But here, it's more like I come back and like my parents aren't here and so I'm like "okay" - like I almost feel like my time management is a bit better because I know when I'm going to have to get something done and then... they're not telling me when to do it, so like it's my choice if I want to go to the library - I know that that's my own choice, like I don't have anyone telling me when I have to study or if I have to overachieve, like no one's - like, it's all up to me - I don't feel that my friends pressure me to get certain grades ... I don't think my friends make me feel a certain way about how well I do in classes - I see more parental pressure to be - to do well in my classes... or to have higher goals - I wouldn't be able to like let my parents down and not complete it 	<p>KEYWORDS for controlling motivation present:</p> <ul style="list-style-type: none"> - respect for like my parents who are paying for my university - there's also a guilt factor - I'm letting them down if I didn't go - the social pressure of it - I also feel like my friends would be like "well what are you doing here?" - [teachers say] you should come to my lectures - you just need an education to get a good job - it's what I have to do - [my parents] wouldn't support me not getting one - pressured to be into - more parental pressure to do well in my classes - I wouldn't be able to let my parents down <p>KEYWORDS for controlling motivation not present:</p> <ul style="list-style-type: none"> - [my parents are] not necessarily here to watch me to go class or tell me to go to class - my parents aren't here ... they're not telling me when to do it ... it's my choice if I want to go to the library - I don't have anyone telling me when I have to study - I don't feel that my friends pressure me to get certain grades <p>FOSTERED by:</p> <ul style="list-style-type: none"> - desire to not waste one's time - desire to not waste ones "parents' efforts to help me get a good education" - respect for one's parents, not wanting to "let them down" - perception that one's parents would not support them if they did not attend - possessing friends who attend classes and complete their homework and worrying that these friends will perceive her negatively if she does not do the same - professors who strongly recommend attendance at lectures - belief that a "good job" is only possible through education - feeling as though one did not choose university, program of enrolment, or amount of courses enrolled in <p>HINDERED by:</p> <ul style="list-style-type: none"> - not living with parents <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - context specific; feels controlling motivation toward attending university but may be autonomously or even intrinsically motivated to go to trades school or "something different"; also, no pressure from friends to get "certain grades" but pressure to attend lectures and do homework - differentiation between controlling motivation to attend (high) and controlling motivation to engage in specific courses/activities (low) - controlling motivation throughout high school appears to extend to university even though parents are no longer present <p>CONCLUDED "LEVEL": HIGH</p>
Mastery-Approach Goals	<ul style="list-style-type: none"> - Just to like learn better to do well on tests - to like learn the material - [I desire to learn the material] go be able to answer the questions on the test - I guess [I care more about meeting the course requirements than understanding the material because] it's just lack of interest in what I'm learning - if I felt like it was applying to something that I did everyday ... then I would want to actually understand it so that I could apply it to my everyday life or with like my job or my career, but I feel a little bit like - especially, like I'm in a Bio class right now and I'm just like, this isn't, this interesting me - to like learn the material that I've been given 	<p>KEYWORDS for setting mastery goals:</p> <ul style="list-style-type: none"> - to learn better, to learn the material <p>KEYWORDS for not setting mastery goals:</p> <ul style="list-style-type: none"> - I guess [I care more about meeting the course requirements than understanding the material because] it's just lack of interest in what I'm learning <p>FOSTERED by:</p> <ul style="list-style-type: none"> - desire to do well on future tests <p>HINDERED by:</p> <ul style="list-style-type: none"> - belief that course content is not applicable to everyday life or career <p>CONCLUDED "LEVEL": LOW</p>

Performance -Approach Goals	<ul style="list-style-type: none"> - I guess just studying to do well on tests - I remember from the survey, it was like “do you think about how other people are going to do on it” and stuff I don’t necessarily think like “oh I need to be the best in the class”, like a lot of the time ... I just want to be like average ... I just want to meet the requirements ... I don’t necessarily strive to excel ... it would be nice if I could, but I feel like - in high school even, I didn’t really - I was never like above average, so I’ve just kind of like gotten use to being, like ... I just need to meet the requirements and just get by - [my primary goal is] to be able to answer the questions on the test - I just don’t take my schooling competitively, because I just don’t think ... I just feel like there’s always going to be someone who’s going to try harder than me and going to do better than me at school. So, I just don’t really, like I’m just not competing with my grades, I just want to like meet the requirements - so that I can meet the requirement - if my goal is to ... meet the requirements and stay ... above, obviously failing or anything like that, I know that I can do that - maybe I don’t set them super high because I feel like “Okay, I’m not going to be able to achieve that” ... I know that I can meet the requirements and I know that I can get by, so those are the goals that I set - I think in a sense yea [if I do bad in a course, then I kind of lower my goals] because I know in high school like, I would strive more, like that I wanted to be on the honour role and stuff but then, as that didn’t happen, my goals sort of... lessened 	<p>KEYWORDS for setting performance goals:</p> <ul style="list-style-type: none"> - to do well on tests - I just want to be like average - I just want to meet the requirements - to be able to answer the questions on the test - stay above failing <p>KEYWORDS for not setting performance goals:</p> <ul style="list-style-type: none"> - I don’t take my schooling competitively - I’m just not competing with my grades <p>FOSTERED by:</p> <ul style="list-style-type: none"> - desire to pass the course (“stay above failing”) <p>HINDERED by:</p> <ul style="list-style-type: none"> - does not set performance goal of being better than others because she feels unable to achieve this: “there’s always going to be someone who’s going to try harder and do better than me”; however, still compares her scores to the course requirements (i.e. focused on demonstration of competence rather than acquisition of competence) <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - although does not “strive to excel” goals are still based on demonstration of competence and comparison to other students; however, unlike others who set performance goals, she does not strive to do better than others or get top marks, she strives to be average and meet course requirements - types of performance goals set affected by non-obtainment of past performance goals (“in high school ... I was never above average”); but, focus is still on performance goal rather than mastery - sets goals she feels capable of achieving <p>CONCLUDED “LEVEL”: MODERATE</p>
Autonomy Satisfaction	<ul style="list-style-type: none"> - I’m from out of province so [my parents are] not necessarily here to watch me to go class or tell me to go to class, so I have to like make that choice myself, so I have like, I can freely choose to go - <u>I guess if I was taking something that ... maybe wasn’t a university, like if I was doing something more like in trades, or ... something different that I didn’t feel pressured to be into, that I was more like “ okay I just want to take these couple of courses here”, and ... I felt more like it was my decision or I was just doing it for myself, then I would probably be more interested</u> - when I was at home, when I would come home from school, my parents were like “do your homework, go do your homework” and I think in a sense that kind of made me feel like “no, I’m not going to do it, you’re telling me to do it so I don’t want to”. But here, it’s more like I come back and like my parents aren’t here and so I’m like “okay” - like I almost feel like my time management is a bit better because I know when I’m going to have to get something done and then... they’re not telling me when to do it, so like it’s my choice if I want to go to the library and do that or if I just want to sit in my room and not - [my parents not being here is] definitely the big - that’s, I think that might be - I don’t know if I can think of another one ... I think most of it is just being out of home - I choose to like study enough so that I can meet the requirement and I know that that’s my own choice, like I don’t have anyone telling me when I have to study or if I have to overachieve, like no one’s - like, it’s all up to me - in university you get to choose where to go because like they’re not taking attendance, so that plays a lot into it - I know it’s an elective ... like electives still can count towards a degree 	<p>KEYWORDS for high autonomy satisfaction:</p> <ul style="list-style-type: none"> - I have to like make that choice myself - I can freely choose to go - it’s my choice if I want to go to the library - that’s my own choice - it’s all up to me <p>KEYWORDS for low autonomy satisfaction:</p> <ul style="list-style-type: none"> - something different that I didn’t feel pressured to be into <p>FOSTERED by:</p> <ul style="list-style-type: none"> - moving from another province (parents are not able to “tell me to go to class”; “being out of home”) - if I felt more like it was my decision or I was just doing it for myself - in university courses “they’re not taking attendance” - having elective courses within her degree program <p>HINDERED by:</p> <ul style="list-style-type: none"> - parental pressure to attend university <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - appears to regard autonomy as a bit of a burden: “I have to make that choice” - autonomy at university (high) is different from autonomy to attend university (low) <p>CONCLUDED “LEVEL”: MODERATE</p>

Competence Satisfaction	<ul style="list-style-type: none"> - I feel that I would let myself down, I just don't take my schooling competitively, because I just don't think ... I just feel like there's always going to be someone who's going to try harder than me and going to do better than me - I feel capable of doing well just because... like, I don't think that I'm at - I don't think that the level of my classes yet is too overwhelming, like it still feels pretty general, I guess, just like first year classes and stuff, so I think it's pretty easy to like learn the material that I've been given and ... if I set my mind to do something I can get it done - how I've done so far [makes me feel competent] - my goal is to... meet the requirements and stay... above, obviously failing or anything like that, I know that I can do that, like I feel competent that I can achieve that - Then I think "okay, I can do this" and then... so, it fluctuates for sure - I feel like I have no competence in math ... I've just given up on myself in math, and maybe if I was like "no, I can do this" then I would probably ... I'm not taking any math courses here, but if I kind of gave myself higher self-esteem when it came to math, then maybe I would be able to reach standards, but I feel like because I already kind of say "no, I'm not going to do well" that then I don't - I know that I have areas where I excel and I know that I have areas where I don't as much and it all just - it all depends on my mind set - I'm good at it and it gives me satisfaction when I get good grades in that course. I always did my best in high school in my art classes, so that gave me satisfaction - I think that I do do well in the course - once I can set my mind to something, I feel like I can accomplish much more. - 	<p>KEYWORDS for high competence satisfaction:</p> <ul style="list-style-type: none"> - I feel capable of doing well - I don't think that the level of my classes yet is too overwhelming - it's pretty easy to like learn the material - if I set my mind to do something I can get it done - I know that I can [meet the requirements and not fail] - I feel competent that I can achieve that - I have areas where I excel - I'm good at [art class] - I do do well in the course <p>KEYWORDS for low competence satisfaction:</p> <ul style="list-style-type: none"> - there's always going to be someone who's going to try harder than me and going to do better than me - I have no competence in math - I've just given up on myself in math - I have areas where I don't [excel] as much <p>FOSTERED by:</p> <ul style="list-style-type: none"> - belief that classes are at a lower level ("not too overwhelming") such as "genera ... first year classes" - past success in courses: "how I've done so far" - belief that one <i>could</i> do well in a course if they had "higher self-esteem" or a better "mind set" despite doing poorly in that subject in the past: "once I can set my mind to something, I feel like I can accomplish much more" <p>HINDERED by:</p> <ul style="list-style-type: none"> - feeling as though one has given up on themselves; expecting to do poorly in a course based on past experience <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - low competence satisfaction appears to lead to the choice to not compare one's self to others or "take schooling competitively" - competence satisfaction is highly relative; feels competent to pass course and meet requirements and thus is satisfied despite knowing she is not as competent as other students - context specific: "it fluctuates for sure"; "I have areas where I excel and I know that I have areas where I don't as much" - conflation between actual competence satisfaction and belief that one's competence could be satisfied; possibly protective against ill well-being to say that competence is only satisfied because one had "low self-esteem" in a certain subject when in fact one may simply be incompetent in that subject (e.g. "it all depends on my mind set"; "once I can set my mind to something ... I can accomplish much more") <p>CONCLUDED "LEVEL": MODERATE</p>
Academic Dedication	<ul style="list-style-type: none"> - if I found something and I was like "this is what I want to do for the rest of my life" then I would be like "okay, I want to learn this, like I want to understand it" I just don't know if I've found what I want to do for the rest of my life - the classes that I'm taking are good because I know what I don't want to do, so I'm still just trying to find what I do want to do - I think dropping out would be like just completely giving up on it altogether? - I wouldn't drop out. - No, I don't consider dropping out - I'm never going to like completely give up and just drop it because I don't want to end up working like, at McDonalds, or something 	<p>KEYWORDS for high dedication:</p> <ul style="list-style-type: none"> - I think dropping out would be like just completely giving up on it altogether - I wouldn't drop out - I don't consider dropping out - I'm never going to completely give up and drop it <p>KEYWORDS for low dedication:</p> <ul style="list-style-type: none"> - I don't know if I've found what I want to do for the rest of my life <p>FOSTERED by:</p> <ul style="list-style-type: none"> - desire to obtain a good job in the future ("I don't want to end up working at McDonalds") - not wanting to "completely give up" <p>HINDERED by:</p> <ul style="list-style-type: none"> - not having a specific future career plan: "if I found something and I was like "this is what I want to do for the rest of my life" then I would be like "okay, I want to learn this, like I want to understand it" I just don't know if I've found what I want to do for the rest of my life" <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - context specific: dedicated toward university in general but not dedicated to any specific course or program <p>CONCLUDED "LEVEL": MODERATE</p>

Academic Achievement	<ul style="list-style-type: none"> - it gives me satisfaction when I get good grades in that course. I always did my best in high school in my art classes - if I thought I was good at it but I wasn't getting good grades in the class, then I would probably not enjoy it as much ... but I think that I do enjoy it and I think that I do do well in the course - I need to like, at least maintain a decent average to like even to stay in university so like I don't want to fail - if I feel like I did well in the class but my parents think "no, that's not a good enough grade" then I feel like maybe I should have done better. - I just want to be like average... I just want to meet the requirements, like I don't necessarily strive to excel ... it would be nice if I could, but I feel like - in high school even ... I was never like above average, - I'm just not competing with my grades, I just want to like meet the requirements. - I wanted to be on the honour role... but then, as that didn't happen, my goals sort of... lessened 	<p>KEYWORDS for high achievement:</p> <ul style="list-style-type: none"> - I get good grades in that course / getting good grades - I do do well - maintain a decent average - be like average / above average - meet the requirements - be on the honour role <p>KEYWORDS for low achievement:</p> <ul style="list-style-type: none"> - fail - my parents think "no, that's not a good enough grade" - I don't necessarily strive to excel ... it would be nice if I could <p>FOSTERED by:</p> <ul style="list-style-type: none"> - desire to remain in university <p>HINDERED by:</p> <ul style="list-style-type: none"> - belief one can not obtain high achievement <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - achievement is very course specific - does not speak in terms of absolute numbers so difficult to ascertain objective level of achievement <p>CONCLUDED "LEVEL": LOW</p>
Well-being	<ul style="list-style-type: none"> - I don't think that the level of my classes yet is too overwhelming - the negative feelings - my negative feelings - I feel a little bit like scatter brain, kind of like I'm all over the place, I don't know where I'm going to be in five years - I'm just like confused when it comes to my education. - one of the things we do before we start one of the major projects that's - which is like with all the mess and the chemicals and stuff which kind of gets me ... I get anxious thinking about it, it's just stressful - it gives me satisfaction when I get good grades in that course. I always did my best in high school in my art classes, so that gave me satisfaction 	<p>KEYWORDS for high wellbeing:</p> <ul style="list-style-type: none"> - not too overwhelming, gives me satisfaction <p>KEYWORDS for low wellbeing:</p> <ul style="list-style-type: none"> - negative feelings, feel like a scatter brain, I don't know where I'm going to be in five years, confused when it comes to education, I get anxious thinking about it, it's stressful <p>FOSTERED by:</p> <ul style="list-style-type: none"> - obtaining good grades - feeling confident in "level of classes" <p>HINDERED by:</p> <ul style="list-style-type: none"> - beginning a major project that involves mess (art class) - not having a clear career goal <p>CONCLUDED "LEVEL": LOW</p>
Relationships Between Constructs as Experienced by Interviewee C1		
NO DATA for the following relationships: Controlling Motivation / Academic Achievement Autonomy Satisfaction/ Academic Dedication Autonomy Satisfaction / Academic Achievement Autonomy Satisfaction / Well-being Autonomy Satisfaction / Competence Satisfaction Mastery-Approach Goals / Academic Achievement		
Relationships Between Outcome Variables and Motivation Types		
Intrinsic Motivation / Academic Dedication	<ul style="list-style-type: none"> - if I found something and I was like "this is what I want to do for the rest of my life" then I would be like "okay, I want to learn this, like I want to understand it" I just don't know if I've found what I want to do for the rest of my life, or something that's really interesting to me - I'm in a Bio class ... and I'm just like, this isn't ... interesting me ... in a way, the classes that I'm taking are good because I know what I don't want to do, so I'm still just trying to find what I do want to do - I would be a lot more dedicated for sure ... if I was enjoying what I was learning and if I was interested I would probably be like all over the textbooks and all over the extra assignments, but I just don't... I have such a lack of interest that, I'm - yea, I'm not really like motivated 	<p>UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Dedication (positive relationship)</p> <ul style="list-style-type: none"> - lack of intrinsic motivation (no interest in course content) is related to decreased dedication (no desire to pursue field long-term) - expects intrinsic motivation (interest in content and enjoyment of courses) would be related to increased dedication (desire to work in field for the rest of her life, commitment to assignments and course readings): "I would be a lot more dedicated for sure ... if I was enjoying what I was learning and if I was interested"

Autonomous Motivation / Academic Dedication	<ul style="list-style-type: none"> - I don't know if I would necessarily apply it to my life ... if I found something and I was like "this is what I want to do for the rest of my life" then I would be like "okay, I want to learn this, like I want to understand it" I just don't know if I've found what I want to do for the rest of my life - I think if I was in a course where... I thought that ... this is going to be ... what I want to do for the rest of my life, like if I felt like it was applying to something that I did everyday ... then I would want to actually understand it so that I could apply it to my everyday life or with like my job or my career ... the classes that I'm taking are good because I know what I don't want to do, so I'm still just trying to find what I do want to do - I feel that classes are important to my degree ... I don't know what I would do at all if I wasn't in school ... I don't necessarily know what my degree is going to be, but I know that at least I'm here ... so I wouldn't drop out - No, I don't consider dropping out ... everything always seems to work out ... I just know there's always something you can do - I'm never going to like completely give up and just drop it because I don't want to end up working like, at McDonalds 	<p>RECIPROCAL RELATIONSHIP</p> <p>Autonomous Motivation --> Dedication (positive relationship)</p> <ul style="list-style-type: none"> - lack of autonomous motivation toward course content (belief that it does not apply to one's life) is related to decreased dedication (no desire to work in field for the rest of one's life) - autonomous motivation (belief that degree is important to future and that courses are important to degree) is related to increased dedication (I wouldn't drop out): "I'm never going to like completely give up and just drop it because I don't want to end up working like, at McDonalds" <p>Dedication -> Autonomous Motivation (positive relationship)</p> <ul style="list-style-type: none"> - high dedication ("this is what I want to do for the rest of my life") is related to increased autonomous motivation (desire to engage more in courses)
Controlling Mot. / Dedication	<ul style="list-style-type: none"> - I wouldn't be able to like let my parents down and not complete it - Yea [my dedication to complete my degree is related to the social pressure] 	<p>UNIDIRECTIONAL RELATIONSHIP Controlling Motivation --> Dedication (positive relationship)</p> <ul style="list-style-type: none"> - controlling motivation (not wanting to let one's parents down) is related to increased dedication to "complete it"
Intrinsic Motivation / Academic Achievement	<ul style="list-style-type: none"> - I enjoy art because I feel that I'm good at it and it gives me satisfaction when I get good grades in that course. I always did my best in high school in my art classes, so that gave me satisfaction - if I thought I was good at it but I wasn't getting good grades in the class, then I would probably not enjoy it as much, or it would frustrate me, but I think that I do enjoy it and I think that I do do well in the course, so I think they both just go well together 	<p>UNIDIRECTIONAL RELATIONSHIP Achievement -> Intrinsic Motivation (positive relationship, conditional)</p> <ul style="list-style-type: none"> - high achievement ("get good grades") causes intrinsic motivation toward that specific class ("I enjoy art") - believes low achievement (if I wasn't getting good grades) would cause decreased intrinsic motivation (then I would probably not enjoy it as much, it would frustrate me) <p>MEDIATED by competence satisfaction such that good grades makes one feel competent which increases intrinsic motivation</p>
Auton. Mot / Achiev.	I know that I need to like, at least maintain a decent average to like even to stay in university so like I don't want to fail	<p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - autonomously motivated toward academic achievement
Intrinsic Motivation / Well-being	<ul style="list-style-type: none"> - I think that the negative feelings come from my lack of interest, for sure - I feel uninterested and negative I guess towards [my courses] - I enjoy art ... and it gives me satisfaction when I get good grades in that course. I always did my best in high school in my art classes, so that gave me satisfaction - if I thought I was good at it but I wasn't getting good grades in the class, then I would probably not enjoy it as much, or it would frustrate me 	<p>UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Wellbeing (positive relationship)</p> <ul style="list-style-type: none"> - low intrinsic motivation is related to low well-being: "the negative feelings come from my lack of interest" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - low intrinsic motivation and low well-being are conceptually similar: "I feel uninterested and negative"; "I would probably not enjoy it as much, or it would frustrate me" - high intrinsic motivation and high well-being are conceptually similar: "I enjoy art ... and it gives me satisfaction"

Autonomous Motivation / Well-being	<ul style="list-style-type: none"> - I still attend a lot of my lectures because ... I just feel better about my day if I know that I'm attending - I don't know if this is what I want to be doing, I don't know if I should be in a different course, so then I'm just like confused and I get unmotivated ... I wish I could just see like a clearer path and I could just know what I'm going to end up doing, and be like "okay, this is worth it, like just push through it now", so sometimes that's where the negative feelings come from, but then the positive feelings are like, okay at least I'm in university, at least I'm doing something - I guess not knowing where I am [contributes to my moderate life satisfaction] I don't like not knowing my plan ... I feel a little bit like scatter brain ... like I'm all over the place, I don't know where I'm going to be in five years ... I'd like to see the bigger picture and see ... what I'm going to do as a job, or if that's going to work out for me ... I'm just like confused when it comes to my education. - I always did my best in high school in my art classes, so that gave me satisfaction, even if I didn't think it was going to be a career, it was just something for more like my personal interest outside of like a career or an education - or like my job 	<p>RECIPROCAL RELATIONSHIP Autonomous Motivation --> Wellbeing (positive relationship, conditional)</p> <ul style="list-style-type: none"> - autonomous motivation (belief that university is important to one's future and choosing to attend lectures) is related to increased well-being (positive feelings and feeling "better about my day") - lack of autonomous motivation (not having a clear career path, future plan or chosen field of employment) is related to low well-being ("negative feelings", feeling "scatter brained", and confused) <p>MEDIATED by intrinsic motivation and competence satisfaction:</p> <ul style="list-style-type: none"> - lack of autonomous motivation (elective courses that are not related to one's future career or potential job) can be related to positive well-being (satisfaction) if one is intrinsically motivated toward the course (taking it for their own personal interest) and/or if the course satisfies one's need for competence <p>Wellbeing -> Autonomous Motivation (positive relationship)</p> <ul style="list-style-type: none"> - desire for positive well-being is related to increased autonomous motivation to attend courses: "I still attend a lot of my lectures because ... I just feel better about my day if I know that I'm attending"
Controlling Mot. / Well-being	<ul style="list-style-type: none"> - [if I feel I did poorly but my parents feel I did okay] then I would feel better [about my competence] but that's never happened 	<p>UNIDIRECTIONAL RELATIONSHIP Controlling Motivation --> Wellbeing (negative relationship)</p> <ul style="list-style-type: none"> - lack of controlling motivation is related to increased wellbeing ("I would feel better")
Relationships Between Outcome Variables and Needs Satisfaction		
Competence Satisfaction / Academic Dedication	<ul style="list-style-type: none"> - I feel like I have no competence in math ... I feel like I've just given up on myself in math, and maybe if I was like "no, I can do this" then I would probably - because, I'm not taking any math courses here - I think dropping out would be like just completely giving up on it altogether? ... I know that I have areas where I excel and I know that I have areas where I don't as much and it all just - it all depends on my mind set 	<p>UNIDIRECTIONAL RELATIONSHIP Competence Satisfaction --> Dedication (positive relationship)</p> <ul style="list-style-type: none"> - low competence satisfaction within a subject ("I have no competence in math") is related to lack of dedication toward that subject ("I've just given up on myself in math ... I'm not taking any math courses") - believes that high competence satisfaction (if I felt I could do it) would be related to dedication toward course <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - competence satisfaction is very context dependent; may have low competence and little dedication toward one course (math) but high competence and dedication in others; as long as one feels competent toward something, overall dedication to complete degree will be retained: "dropping out would be ... completely giving up on it altogether? ... I know that I have areas where I excel and ... areas where I don't"
Competence Satisfaction / Academic Achievement	<ul style="list-style-type: none"> - Yea [parental pressure influences my sense of competence] because if I feel like I did well in the class but my parents think "no, that's not a good enough grade" then I feel like maybe I should have done better. - Yes [I feel my feeling of competence is related to the grades I obtain] if I do well in a course, then I feel more - I feel like okay, I can do this, like this is a good representation of how well I did in the course, but then if I do bad then it kind of like lowers my confidence - I feel that I'm good at [art] and it gives me satisfaction when I get good grades in that course. - if I thought I was good at it but I wasn't getting good grades in the class, then I would probably not enjoy it as much, or it would frustrate me, but I think that I do enjoy it and I think that I do do well in the course, so I think they both just go well together 	<p>UNIDIRECTIONAL RELATIONSHIP Achievement -> Competence Satisfaction (positive relationship)</p> <ul style="list-style-type: none"> - obtaining low achievement is related to reduced competence satisfaction: "if I do bad then it kind of like lowers my confidence" - high achievement is related to increased competence satisfaction <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - achievement and competence relationship influences intrinsic motivation and well-being such that if competence is high but achievement is low, intrinsic motivation and well-being are both decreased: "if I thought I was good at it but I wasn't getting good grades in the class, then I would probably not enjoy it as much, or it would frustrate me"

Competence Satisfaction/ Well-being	<ul style="list-style-type: none"> - I feel capable of doing well just because ... I don't think that the level of my classes yet is too overwhelming ... just like first year classes - I get anxious thinking about [starting a new art project], it's just stressful - but ... I enjoy art because I feel that I'm good at it and it gives me satisfaction ... I always did my best in high school in my art classes, so that gave me satisfaction - if I thought I was good at it but I wasn't getting good grades in the class ... it would frustrate me, but I think that ... I do well in the course, so I think they both just go well together 	<p>RECIPROCAL RELATIONSHIP Wellbeing--> Competence Satisfaction (positive relationship) - positive well-being (not feeling overwhelmed) is related to competence satisfaction ("I feel capable of doing well")</p> <p>Competence Satisfaction -> Wellbeing (positive relationship, conditional) - increased competence satisfaction ("I'm good at it") is related to increased well-being ("it gives me satisfaction"), even if well-being within course was initially low ("I get anxious thinking about it, it's just stressful")</p> <p>MEDIATED by academic achievement: "if I thought I was good at it but I wasn't getting good grades in the class ... it would frustrate me"</p>
Relationships Between Motivation Types and Needs Satisfaction		
Intrinsic Motivation / Autonomous Motivation	<ul style="list-style-type: none"> - I have an art class that I enjoy but I also feel like... it's a lot of extra work ... I like art a lot, but I just don't feel like I could get a good job with something in that field necessarily - it's just lack of interest in what I'm learning, I think if I was in a course where ... I thought that like - this is going to like help - or this is going to be where I want to learn - or what I want to do for the rest of my life ... if I felt like it was applying to something that I did everyday ... then I would want to actually understand it so that I could apply it to my everyday life or with like my job or my career, but I feel a little bit like [my current courses aren't] interesting me - I enjoy art ... even if I didn't think it was going to be a career, it was just something for more like my personal interest outside of ... a career or an education - or... job. 	<p>UNIDIRECTIONAL RELATIONSHIP Autonomous Motivation -> Intrinsic Motivation (positive relationship) - low autonomous motivation (feeling as though course content is irrelevant to one's everyday life and unrelated to one's future career) is related to low intrinsic motivation (lack of interest in course) - believes that high autonomous motivation would be related to high intrinsic motivation</p> <p>CONTEXTUAL RELATIONSHIP - high intrinsic and low autonomous motivation can co-exist: "I enjoy art ... even if I didn't think it was going to be a career, it was just something for more like my personal interest"</p> <p>OTHER COMMENTS: - no evidence that intrinsic influences autonomous motivation - when experiences high intrinsic and low autonomous motivation, intrinsic is not hindered but overall motivation toward class long-term is low</p>
Intrinsic Motivation / Controlling Motivation	<ul style="list-style-type: none"> - I don't enjoy what I'm learning ... I don't look forward to studying ... I find it really tedious and I just don't enjoy it ... but I feel like in this day you just need an education to get a good job and I don't want to end up without a good job so I know that it's what I have to do, but I don't enjoy it - if I was taking something that ... maybe wasn't a university ... if I was doing something more like in trades ... something different that I didn't feel pressured to be into, that I was more like "okay I just want to take these couple of courses here"... and I felt more like it was my decision or I was just doing it for myself, then I would probably be more interested 	<p>UNIDIRECTIONAL RELATIONSHIP Controlling Motivation -> Intrinsic Motivation (negative relationship) - believes that lack of controlling motivation would be related to increased intrinsic motivation: "if I was doing something ... that I didn't feel pressured to be into... and I felt more like it was my decision or I was just doing it for myself, then I would probably be more interested"</p> <p>CONTEXTUAL RELATIONSHIP - experiences very low intrinsic motivation (I don't enjoy what I'm learning, I don't look forward to studying, I find it tedious, I don't enjoy it) and controlling motivation (you just need an education, it's what I have to do)</p>

Autonomous Motivation / Controlling Motivation	<ul style="list-style-type: none"> - I'm from out of province so [my parents are] not necessarily here to watch me to go class or tell me to go to class, so I have to like make that choice myself ... I can freely choose to go. And there's also a guilt factor, if I wasn't to go then I would be like "well, I'm wasting my time here and I'm wasting my parents efforts to help me get a good education" - teachers and stuff [are] like "you should come to my lectures, like it's important", especially ... some of my professors won't put their notes up online or anything, so then I don't want to like miss the notes and then just fall super behind - when I was at home, when I would come home from school, my parents were like "do your homework, go do your homework" and I think in a sense that kind of made me feel like "no, I'm not going to do it, you're telling me to do it so I don't want to". But here, it's more like I come back and like my parents aren't here and so I'm like "okay" ... I almost feel like my time management is a bit better because I know when I'm going to have to get something done and... they're not telling me when to do it, so like it's my choice if I want to go to the library ... or if I just want to sit in my room - I wouldn't be able to like let my parents down and not complete it because ... I don't know what I would do at all if I wasn't in school ... I don't necessarily know what my degree is going to be, but I know that at least I'm here ... my parents just want to make sure that I'm at least in school and I'm just trying to figure something out instead of like not in school, not doing anything. 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Controlling Motivation -> Autonomous Motivation (positive and negative relationship, conditional)</p> <ul style="list-style-type: none"> - low controlling motivation in university (parents geographically far and unable to "tell me to go to class") is related to increased autonomous motivation ("I can freely choose to go"; "it's my choice") - high controlling motivation at university (guilt, pressure from professors, not wanting to let parents down) is also related to increased autonomous motivation (self-pressure to attend); but this motivation may not be purely autonomous - high controlling motivation in high school was related to low autonomous motivation: "when I would come home from school, my parents were like 'do your homework, go do your homework' and I think in a sense that kind of made me feel like 'no, I'm not going to do it, you're telling me to do it so I don't want to'" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - discusses autonomous motivation as a form of self-pressure that may be experienced similarly to controlling motivation: "I have to like make that choice myself" - may feel pressured to consider something important: "teachers ... [are] like 'you should come to my lectures, like it's important'"
Intrinsic Motivation / Autonomy Satisfaction	<ul style="list-style-type: none"> - if I was taking something that maybe ... wasn't a university, like if I was doing something more like in trades, or ... something different that I didn't feel pressured to be into, that I was more like "okay I just want to take these couple of courses here" ... and I felt more like it was my decision or I was just doing it for myself, then I would probably be more interested in - I enjoy [art] because it's more of a hobby I feel and so like I know it's an elective ... but ... electives still can count towards a degree 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Autonomy Satisfaction -> Intrinsic Motivation (positive relationship)</p> <ul style="list-style-type: none"> - autonomy satisfaction toward a course or program (something that I didn't feel pressured into; I felt like it was my decision or I was doing it for myself; a hobby I chose; an elective) is related to increased intrinsic motivation toward that course or program (I would be more interested in it; enjoyment)
Intrinsic Motivation / Competence Satisfaction	<ul style="list-style-type: none"> - I enjoy art because I feel that I'm good at it and it gives me satisfaction when I get good grades in that course. I always did my best in high school in my art classes, so that gave me satisfaction, even if I didn't think it was going to be a career, it was just something for more like my personal interest - if I thought I was good at it but I wasn't getting good grades in the class, then I would probably not enjoy it as much, or it would frustrate me, but I think that I do enjoy it and I think that I do do well in the course, so I think they both just go well together 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Competence Satisfaction -> Intrinsic Motivation (positive relationship, conditional)</p> <ul style="list-style-type: none"> - competence satisfaction causes increased intrinsic motivation: "I enjoy art because I feel that I'm good at it ... I always did my best in high school in my art classes, so that gave me satisfaction, even if I didn't think it was going to be a career, it was just something for more like my personal interest" <p>MEDIATED by achievement such that if she feels competent in a course BUT does not obtain high grades, intrinsic motivation would be lowered (I would not enjoy it as much, it would frustrate me)</p>
Autonomous Motivation / Autonomy Satisfaction	<ul style="list-style-type: none"> - [my parents can't] tell me to go to class, so I have to like make that choice myself, so I have like, I can freely choose to go - my parents aren't here and so ... my time management is a bit better because I know when I'm going to have to get something done and... they're not telling me when to do it, so like it's my choice if I want to go to the library and do that or if I just want to sit in my room - in university you get to choose where to go because like they're not taking attendance ... but I still attend a lot of my lectures because ... I just feel better about my day if I know that I'm attending, so I think that ... I'm still motivated to go to my classes - if I failed ... it wouldn't be my choice to stay in university, so I know that I need to ... at least maintain a decent average to like even to stay in university so like I don't want to fail 	<p>RECIPROCAL RELATIONSHIP</p> <p>Autonomous Motivation --> Autonomy Satisfaction (positive relationship)</p> <ul style="list-style-type: none"> - autonomous motivation ("I have to make that choice myself" because my parent's can't) allows one to have autonomy satisfaction ("I can freely choose to go"; "it's my choice") <p>Autonomy Satisfaction -> Autonomous Motivation (positive relationship)</p> <ul style="list-style-type: none"> - autonomy satisfaction ("in university you get to choose where to go") allows one to be autonomously motivated - desire to maintain autonomy satisfaction (have the option to attend university) is related to increased autonomous motivation toward engaging in academic activities so that one does not fail and lose the opportunity to continue attending university <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - little differentiation between autonomy satisfaction and autonomous motivation

Autonomous Motivation / Competence Satisfaction	<ul style="list-style-type: none"> - I'm good at it and it gives me satisfaction when I get good grades in that course. I always did my best in high school in my art classes, so that gave me satisfaction, even if I didn't think it was going to be a career, it was just something for more like my personal interest outside of like a career or an education - or like my job - I think that my motivation ... it's hard to get, but then once I can set my mind to something, I feel like I can accomplish much more. So I just... hopefully in my future education or in the courses that I take in the following years I can just like get a clear sense of what I want to do and then I know I'll be more motivated and I know I'll do better 	<p>UNIDIRECTIONAL RELATIONSHIP Autonomous Motivation --> Competence Satisfaction (positive or negative relationship, conditional)</p> <ul style="list-style-type: none"> - high autonomous motivation is related to increased competence satisfaction: "once I can set my mind to something, I feel like I can accomplish much more" - low autonomous motivation ("I didn't think it was going to be a career ... just something for ... my personal interest") is related to high competence satisfaction ("I'm good at it ... I always did my best") <p>MEDIATED by intrinsic motivation</p>
Controlling Motivation / Autonomy Satisfaction	<ul style="list-style-type: none"> - I'm from out of province so [my parents are] not necessarily here to watch me to go class or tell me to go to class, so I have to like make that choice myself ... I can freely choose to go. - if I was taking something that ... wasn't a university, like if I was doing something more like in trades ... something different that I didn't feel pressured to be into, that I was more like "okay I just want to take these couple of courses here", and ... I felt more like it was my decision or I was just doing it for myself - I come back and like my parents aren't here and so I'm like "okay" ... they're not telling me when to do it, so like it's my choice if I want to go to the library and do that or if I just want to sit in my room - I choose to like study enough so that I can meet the requirement and I know that that's my own choice, like I don't have anyone telling me when I have to study or if I have to overachieve, like no one's - like, it's all up to me 	<p>UNIDIRECTIONAL RELATIONSHIP Controlling Motivation --> Autonomy Satisfaction (negative relationship)</p> <ul style="list-style-type: none"> - absence of controlling motivation allows one to feel autonomous: "[my parents can't] ... tell me to go to class, so I have to like make that choice myself ... I can freely choose to go"; "they're not telling me when to do it, so like it's my choice" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - absence of controlling motivation is conceptually similar to presence of autonomy satisfaction: "[classes] that I didn't feel pressured to be into, that ... I felt more like it was my decision or I was just doing it for myself"; "[my parents are] not telling me when to do it, so like it's my choice"; "I know that that's my own choice, like I don't have anyone telling me when I have to study or if I have to overachieve ... it's all up to me"
Controlling Motivation / Competence Satisfaction	<ul style="list-style-type: none"> - I don't think my friends make me feel a certain way about how well I do in classes necessarily - I see more parental pressure to be - to do well in my classes ... or to like... be more competent in my classes - Yea [parental pressure influences my sense of competence] because if I feel like I did well in the class but my parents think "no, that's not a good enough grade" then I feel like maybe I should have done better. 	<p>UNIDIRECTIONAL RELATIONSHIP Controlling Motivation --> Competence Satisfaction (negative relationship)</p> <ul style="list-style-type: none"> - controlling motivation to do better is related to decreased competence satisfaction: "if I feel like I did well in the class but my parents think [I didn't] then I feel like maybe I should have done better." <p>NO RELATIONSHIP</p> <ul style="list-style-type: none"> - no relationship between social pressure from friends and competence satisfaction <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - experiences controlling motivation (parental pressure) to do well and to be more competent
Relationships Between Achievement Goal Theory Constructs and Outcomes		
Mastery-Goals / Performance-Goals	<ul style="list-style-type: none"> - to like learn the material to be tested on ... [my goal is to learn the material] to be able to answer the questions on the test 	<p>RECIPROCAL RELATIONSHIP Performance-approach goals -> Mastery-approach goals (positive relationship)</p> <ul style="list-style-type: none"> - desire to obtain performance goals (do well on the test) causes one to set mastery goals (learn the material) - goal types are clearly differentiated but co-exist although mastery goals are only set to ultimately obtain performance goals <p>Performance-approach goals -> Mastery-approach goals (positive relationship)</p> <ul style="list-style-type: none"> - desire to obtain performance goals influences one to set mastery goals:

Mastery- Approach Goals / Academic Dedication	<ul style="list-style-type: none"> - [my main goal is] to be able to answer the questions on the test ... because I don't know if I would necessarily apply it to my life ... if I found something and I was like "this is what I want to do for the rest of my life" then I would be like "okay, I want to learn this, like I want to understand it" I just don't know if I've found what I want to do for the rest of my life - if I felt like it was applying to something that I did everyday ... then I would want to actually understand it so that I could apply it to my everyday life or with like my job or my career, but I feel a little bit like ... I'm in a Bio class right now and I'm just like, this isn't ... interesting me ... in a way, the classes that I'm taking are good because I know what I don't want to do, so I'm still just trying to find what I do want to do 	UNIDIRECTIONAL RELATIONSHIP Dedication -> Mastery-approach Goals (positive relationship) <ul style="list-style-type: none"> - low dedication toward program related to not setting mastery goals because "I don't know if I would necessarily apply it to my life" - believes that increased dedication toward program would result in a desire to set mastery goals: "if I found something and I was like "this is what I want to do for the rest of my life" then I would be like "okay, I want to learn this, like I want to understand it"; "if I felt like it was applying to ... everyday [life] ... then I would want to actually understand it so that I could apply it to my ... job or my career"
Mastery- Goals / Well-being	<ul style="list-style-type: none"> - I don't think that the level of my classes yet is too overwhelming ... it still feels pretty general ... just like first year classes and stuff, so I think it's pretty easy to like learn the material that I've been given 	UNIDIRECTIONAL RELATIONSHIP Wellbeing -> Mastery-approach Goals (positive relationship) <ul style="list-style-type: none"> - positive well-being (not feeling overwhelmed) is related to obtainment of mastery goals (it's pretty easy to learn the material)
Performance -Approach Goals / Academic Dedication	<ul style="list-style-type: none"> - [my main goal is] to be able to answer the questions on the test ... because I don't know if I would necessarily apply it to my life ... if I found something and I was like "this is what I want to do for the rest of my life" then I would be like "okay, I want to learn this, like I want to understand it" I just don't know if I've found what I want to do for the rest of my life 	UNIDIRECTIONAL RELATIONSHIP Dedication -> Performance-approach goals (negative relationship) <ul style="list-style-type: none"> - low dedication toward program is related to setting performance goals: "[my main goal is] to be able to answer the questions on the test ... if I found something and I was like "this is what I want to do for the rest of my life" then I would [want to learn the material], I just don't know if I've found what I want to do for the rest of my life"
Performance -Approach Goals / Academic Achievement	<ul style="list-style-type: none"> - I just want to be like average... I just want to meet the requirements, like I don't necessarily strive to excel ... it would be nice if I could, but I feel like - in high school even ... I was never like above average, so I've just kind of like gotten use to... I just need to meet the requirements and just get by - I'm just not competing with my grades, I just want to like meet the requirements. - if I do bad in a course, then I kind of lower my goals? ... I think in a sense yea, because I know in high school...I would strive...I wanted to be on the honour role... but then, as that didn't happen, my goals sort of... lessened 	UNIDIRECTIONAL RELATIONSHIP Achievement -> Performance-approach goals (positive relationship) <ul style="list-style-type: none"> - low previous academic achievement (in high school I was never above average) is related to setting low performance goals (class average, meet the requirements, not striving to excel, just get by): "if I do bad in a course, then I kind of lower my goals" CONCEPTUAL SIMILARITY <ul style="list-style-type: none"> - uses academic achievement (grade point average) to define performance goals (meeting requirements, excelling)
Performance -Approach Goals / Well-being	<ul style="list-style-type: none"> - I think it's probably the other way around, like my negative feelings affect the goals that I set - like, I think my goals are probably lower because I feel uninterested and negative I guess towards it - I enjoy art because I feel that I'm good at it and it gives me satisfaction when I get good grades in that course. I always did my best in high school in my art classes, so that gave me satisfaction - if I thought I was good at it but I wasn't getting good grades in the class, then I would probably not enjoy it as much, or it would frustrate me 	RECIPROCAL RELATIONSHIP Performance-approach goals --> Wellbeing (positive relationship) <ul style="list-style-type: none"> - obtainment of performance goals is related to increased well-being: "it gives me satisfaction when I get good grades ... I always did my best ... so that gave me satisfaction" - not obtaining performance goals is related to decreased well-being (frustration) MEDIATED by competence satisfaction such that not obtaining performance goals as a larger effect on well-being if one felt they were "good at it" Wellbeing -> Performance-approach goals (negative relationship) <ul style="list-style-type: none"> - poor well-being is related to setting performance goals: "I think my goals are probably lower because I feel uninterested and negative ... towards it"
Relationships Between Achievement Goal Theory and Self-Determination Theory Constructs		

Mastery-Approach Goals / Intrinsic Motivation	<ul style="list-style-type: none"> - I don't enjoy what I'm learning ... I don't look forward to studying - [my main goal is] to be able to answer the questions on the test ... because I don't know if I would necessarily apply it to my life - I mean, I guess if I found something and I was like "this is what I want to do for the rest of my life" then I would be like "okay, I want to learn this, like I want to understand it" - [I am more concerned about meeting the course requirements than understanding the material because] it's just lack of interest in what I'm learning ... if I was in a course where... I thought ... this is going to be where I want to learn - or what I want to do for the rest of my life ... if I felt like it was applying to something that I did everyday ... then I would want to actually understand it so that I could apply it to my everyday life or with like my job or my career, but I feel ... like [my current courses aren't] interesting me - if I was taking something that ... wasn't a university, like ... something more like in trades ... that I didn't feel pressured to be into ... then I would probably be more interested in like... yea. [then I might set the goals to learn the material] Yea. Mhmm - if I was enjoying what I was learning and if I was interested I would probably be like all over the textbooks and all over the extra assignments, but ... I have such a lack of interest that, I'm ... not really like motivated ... towards understanding it 	UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Mastery-approach Goals (positive relationship) <ul style="list-style-type: none"> - lack of intrinsic motivation is related to not setting mastery goals: "if I was enjoying what I was learning and if I was interested I would probably be like all over the textbooks and all over the extra assignments, but ... I have such a lack of interest that, I'm ... not really like motivated ... towards understanding it" - believes intrinsic motivation would be related to setting mastery goals MEDIATED by autonomous motivation: "[my main goal is] to be able to answer the questions on the test ... because I don't know if I would necessarily apply it to my life ... if I found something and I was like "this is what I want to do for the rest of my life" then I would be like "okay, I want to learn this, like I want to understand it"" CONCEPTUAL SIMILARITY - "I don't enjoy what I'm learning"
Mastery-Approach Goals / Autonomous Motivation	<ul style="list-style-type: none"> - [I engage in academic activities] to like learn better because I feel like if I miss a class, then I won't necessarily make up that time outside of class ... so I usually try to make my lectures and try not to get in the habit of missing them - if I found something and I was like "this is what I want to do for the rest of my life" then I would be like "okay, I want to learn this, like I want to understand it" I just don't know if I've found what I want to do for the rest of my life - if I was in a course where ... I thought that like ... this is going to be where I want to learn - or what I want to do for the rest of my life... if I felt like it was applying to something that I did everyday ... then I would want to actually understand it so that I could apply it to my everyday life or with ... my job or my career 	RECIPROCAL RELATIONSHIP Autonomous Motivation --> Mastery-approach Goals (positive relationship) <ul style="list-style-type: none"> - believes autonomous motivation toward a field/career would be related to setting mastery goals within those courses: "if I found something and I was like "this is what I want to do for the rest of my life" then I would be like "okay, I want to learn this, like I want to understand it" Mastery-approach Goals -> Autonomous Motivation (positive relationship) <ul style="list-style-type: none"> - desire to obtain mastery goals (to learn better) is related to increased autonomous motivation to attend courses
Mastery-Approach Goals / Controlling Motivation	<ul style="list-style-type: none"> - if I was taking something that maybe ... wasn't a university, like if I was doing something more like in trades ... something different that I didn't feel pressured to be into ... and I felt more like it was my decision or I was just doing it for myself, then I would probably be more interested in like... Yea. Mhmm [then I would set the goals to learn the material] 	UNIDIRECTIONAL RELATIONSHIP Controlling Motivation --> Mastery-approach Goals (negative relationship) <ul style="list-style-type: none"> - controlling motivation (parental pressure to enrol in university) is related to not setting mastery goals - believes that reduced controlling motivation (enrolling in something I didn't feel pressured to be in) would be related to increased mastery goals (desire to learn the material) MEDIATED by intrinsic motivation (interest in the course)
Mastery-Approach Goals / Autonomy Satisfaction	<ul style="list-style-type: none"> - if I was taking something that ... maybe wasn't a university, like if I was doing something more like in trades ... something different that I didn't feel pressured to be into, that I was more like "okay I just want to take these couple of courses here" ... and I felt more like it was my decision or I was just doing it for myself, then I would probably be more interested in like ... Yea. Mhmm [then I would set the goals to learn the material] 	UNIDIRECTIONAL RELATIONSHIP Autonomy Satisfaction -> Mastery-approach Goals (positive relationship) <ul style="list-style-type: none"> - low autonomy satisfaction (feeling as though she did not choose her program of enrolment) is related to not setting mastery goals - believes that increased autonomy satisfaction (if I felt more like it was my decision) would be related to increased mastery goals (desire to learn the material) MEDIATED by intrinsic motivation (interest in the course)

Mastery- Approach Goals / Competence Satisfaction	<ul style="list-style-type: none"> - I feel capable of doing well just because... I don't think that the level of my classes yet is too overwhelming, like it still feels pretty general ... first year classes and stuff, so I think it's pretty easy to like learn the material that I've been given and ... I know that if I set my mind to do something I can get it done 	<p>RECIPROCAL RELATIONSHIP</p> <p>Competence Satisfaction --> Mastery-approach Goals (positive relationship)</p> <ul style="list-style-type: none"> - competence satisfaction is related to obtainment of mastery goals: "I know that if I set my mind to do something I can get it done" <p>Mastery-approach Goals -> Competence Satisfaction (positive relationship)</p> <ul style="list-style-type: none"> - obtainment of mastery goals causes increased competence satisfaction: "I feel capable of doing well just because... I think it's pretty easy to like learn the material that I've been given"
Performance -Approach Goals / Intrinsic Motivation	<ul style="list-style-type: none"> - [my main goal is] To be able to answer the questions on the test... if I found something and I was like "this is what I want to do for the rest of my life" then I would be like "okay, I want to learn this, like I want to understand it" I just don't know if I've found what I want to do for the rest of my life, or something that's really interesting to me - my goals are probably lower because I feel uninterested ... towards it - I enjoy art because I feel that I'm good at it and it gives me satisfaction when I get good grades in that course - if I thought I was good at it but I wasn't getting good grades in the class, then I would probably not enjoy it as much ... but I think that I do enjoy it and I think that I do well in the course, so I think they both just go well together 	<p>RECIPROCAL RELATIONSHIP</p> <ul style="list-style-type: none"> - I think they both just go well together <p>Intrinsic Motivation --> Performance-approach Goals (positive relationship)</p> <ul style="list-style-type: none"> - low intrinsic motivation (lack of interest) is related setting low performance goals: "my goals are probably lower because I feel uninterested" <p>Performance-approach Goals -> Intrinsic Motivation (positive relationship)</p> <ul style="list-style-type: none"> - obtaining performance goals is related to increased intrinsic motivation: "I enjoy art because ... I get good grades in that course" - not obtaining performance goals is related to decreased intrinsic motivation <p>MEDIATED by competence satisfaction: "if I thought I was good at it but I wasn't getting good grades ... then I probably would not enjoy it as much"</p> <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - believes increased intrinsic motivation would lead to a focus on mastery goals and not performance goals - absence of intrinsic motivation related to a focus on performance goals (doing well on the test) vs. mastery goals; but may still set performance goals if intrinsic motivation present
Performance -Approach Goals / Autonomous Motivation	<ul style="list-style-type: none"> - I guess just studying to do well on tests - [my main goal is] to be able to answer the questions on the test ... because I don't know if I would necessarily apply it to my life ... if I found something and I was like "this is what I want to do for the rest of my life" then I would be like "okay, I want to learn this, like I want to understand it" I just don't know if I've found what I want to do for the rest of my life - if I failed everything...it wouldn't be my choice to stay in university, so... I need to like, at least maintain a decent average to like even to stay in university so like I don't want to fail - I get good grades in that course. I always did my best in high school in my art classes ... even if I didn't think it was going to be a career, it was just something for more like my personal interest outside of like a career or an education - or like my job. - my motivation ... it's hard to get, but then once I can set my mind to something, I feel like I can accomplish much more... hopefully in my future education or in the courses that I take in the following years I can just like get a clear sense of what I want to do and then I know I'll be more motivated and I know I'll do better - it would all feel worth it, it would all feel like "okay this is going to be - I'm going to do well, because I know where I'm going to be" 	<p>RECIPROCAL RELATIONSHIP</p> <p>Autonomous Motivation --> Performance-approach Goals (positive relationship for obtainment of goals; negative relationship for setting of goals)</p> <ul style="list-style-type: none"> - increased autonomous motivation (feeling program is "where I'm going to be" long term) is expected to be related to obtainment of performance goals: "I'm going to do well, because I know where I'm going to be" - low autonomous motivation (feeling as though course content does not apply to one's life or future career) is related to setting performance goals (answer the questions on the test) as oppose to mastery goals (learn and understand the material) <p>Performance-approach Goals -> Autonomous Motivation (positive relationship)</p> <ul style="list-style-type: none"> - obtainment of performance goals (not failing) is related to increased autonomous motivation (ability to continue taking university courses, which one feels is important to future career) <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - one can be autonomously motivated to do well <p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - low autonomous motivation and obtainment of performance goals can co-exist: "I get good grades in that course. I always did my best in high school in my art classes ... even if I didn't think it was going to be a career"

Performance -Goals / Controlling Mot.	<ul style="list-style-type: none"> - even when I was at home and my parents were telling me when and where to do my homework, I still pretty much had the same goals - I don't feel that my friends pressure me to get certain grades - I see more parental pressure to be - to do well in my classes 	<p>NO RELATIONSHIP</p> <ul style="list-style-type: none"> - social pressure from friends and parental pressure does not appear to be related to the types of performance goals set <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - experiences parental pressure to do well in courses
Performance -Approach Goals / Autonomy Satisfaction	<ul style="list-style-type: none"> - I choose to ... study enough so that I can meet the requirement and I know that that's my own choice, like I don't have anyone telling me when I have to study or if I have to overachieve ... it's all up to me - even when I was at home and my parents were telling me when and where to do my homework, I still pretty much had the same goals - if I failed everything ... it wouldn't be my choice to stay in university, so I know that I need to like, at least maintain a decent average to like even to stay in university so like I don't want to fail 	<p>UNIDIRECTIONAL RELATIONSHIP Autonomy Satisfaction --> Performance-approach Goals (positive relationship)</p> <ul style="list-style-type: none"> - desire to maintain autonomy satisfaction (retain the option to stay in university) causes her to set the performance goal of passing her courses <p>NO RELATIONSHIP</p> <ul style="list-style-type: none"> - has experienced both autonomy satisfaction (that's my own choice) and lack of autonomy satisfaction (my parents were telling me when and where to do my homework) but sets similar performance goals (meet the requirements, don't fail) in both instances
Performance -Approach Goals / Competence Satisfaction	<ul style="list-style-type: none"> - [I don't strive to do better than other students] because I feel that I would let myself down, I just don't take my schooling competitively, because ... I just feel like there's always going to be someone who's going to try harder than me and going to do better than me at school. So ... I'm just not competing with my grades, I just want to ... meet the requirements. - if my goal is to... meet the requirements and stay ... above, obviously failing ... I know that I can do that, like I feel competent that I can achieve that - I don't set them super high because I feel like "Okay, I'm not going to be able to achieve that" ... I know that I can meet the requirements and I know that I can get by, so those are the goals that I set. - in high school ... I would strive more ... I wanted to be on the honour role and stuff but then, as that didn't happen, my goals sort of... lessened... Yea, definitely [my sense of competence lessened]... [when I do obtain my goals] I think "okay, I can do this" and then... so, it fluctuates for sure [it's kind of a cyclical relationship] Yes - if I do well in a course, then... I feel like okay, I can do this, like this ... but then if I do bad then it kind of like lowers my confidence - I feel like I have no competence in math ... I've just given up on myself in math, and maybe if I was like "no, I can do this" then ... if I kind of gave myself higher self-esteem when it came to math, then maybe I would be able to reach standards, but I feel like because I already kind of say "no, I'm not going to do well" that then I don't. - I'm good at it and ... I get good grades in that course. I always did my best in high school in my art classes 	<p>RECIPROCAL RELATIONSHIP Competence Satisfaction --> Performance-approach Goals (positive relationship)</p> <ul style="list-style-type: none"> - low competence satisfaction is related to not setting the performance goal of outperforming others "because I feel that I would let myself down" - low competence satisfaction is believed to be related to not obtaining performance goals and high competence satisfaction is expected to be related to obtaining of performance goals: "I have no competence in math... if I kind of gave myself higher self-esteem when it came to math, then maybe I would be able to reach standards, but I feel like because I already kind of say "no, I'm not going to do well" that then I don't." <p>Performance-approach Goals --> Competence Satisfaction (positive relationship)</p> <ul style="list-style-type: none"> - not obtaining performance goals is related to decreased competence satisfaction: "if I do bad then it kind of like lowers my confidence" - obtaining of performance goals (getting good grades) is related to increased competence satisfaction (feeling one is "good at it") <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - sets performance goals that she feels competent to obtain (meet the requirements, not fail the course): "I know that I can meet the requirements and I know that I can get by, so those are the goals that I set"

E-10. VARIABLE MATRIX FOR INTERVIEWEE C2

Explanations of Constructs as Experienced by Interviewee C2

Construct	Explanation	Comments
Intrinsic Motivation	<ul style="list-style-type: none"> - I really enjoy my Comm. classes, my business classes, I really enjoy my accounting classes, and my stats classes - I really enjoyed just looking through the textbook [of my Abnormal Psych class] - I'm not really interested in [my forced electives] but I have to have an [elective] and there's no other one that looks interesting 	<p>KEYWORDS for intrinsic motivation present:</p> <ul style="list-style-type: none"> - "really enjoyed" <p>KEYWORDS for intrinsic motivation not present:</p> <ul style="list-style-type: none"> - "not really interested in" <p>FOSTERED by:</p> <ul style="list-style-type: none"> - content directly related to major or future goals <p>HINDERED by:</p> <ul style="list-style-type: none"> - courses he feels forced to take to meet degree requirements (electives) <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - very context dependent (some classes enjoys, others does not) <p>CONCLUDED "LEVEL": MODERATE</p>
Autonomous Motivation	<ul style="list-style-type: none"> - there's some classes you just have to go to or you're never going to understand what they're doing - I feel even if they have all the notes posted it's still good to go because then at least you kind of are going to get it more in depth - I feel going to class I can ... understand a little bit more because the teacher... goes in depth and then you have the student participation as well which adds to the importance as well. I think it's important to go just to get other people's views. - I really didn't enjoy [my electives] at all, but I needed them for my degree so I took them anyways - I find if you're going to take the class you might as well learn something from it - I've always wanted to take business and I've always been a big school person because my mom's a teacher and I find I've always been big into school - I feel I should still go. - I've always wanted this degree, always... I see myself with a degree and I see myself working in the business world... after doing the trades, I realized that the degree is really what I want so that's when I started working more towards it 	<p>KEYWORDS for autonomous motivation present:</p> <ul style="list-style-type: none"> - "you just have to go" - "it's still good to go" - "important to go" - "I needed them for my degree, so I took them" - "always been big into school" - "I feel I should still go" - "the degree is really what I want so I started working more" - "I see myself with a degree" <p>FOSTERED by:</p> <ul style="list-style-type: none"> - belief that attending will lead to increased understanding needed for future career - belief that attending leads to more attainment of more information through spontaneous class discussions (i.e. students ask questions/share views, teachers go more in depth) - strong desire for degree / career goals - internalization of oneself as a "school person" due to past autonomous motivation toward school and parental involvement <p>CONCLUDED "LEVEL": HIGH</p>
Controlling Motivation	<ul style="list-style-type: none"> - I lived with two nurses and they were like the brightest kids and they always went, so I figured I always had to go... I moved in with one of their parents, and they were kind of - you know - you signed up for it, you have to go sort of people and even if I was sick and I skipped a day, I felt guilty because - you know, their children went to school so why shouldn't I.. - I signed up for philosophy because my friend did and my mom was like "Oh it's a great class" - It's not just school in general I hate, it's just the stupid classes you have to take. - my dad, if I ever ever dropped out or ever failed or anything, I feel like I never do good enough for him and so I always shoot higher to make him feel like I did something... I always have to live up to his expectations which, I never do. So, I feel that that pressures me to finish a little bit more as well - It's always there in the back of my head, what [my roommates and their parents] would say 	<p>KEYWORDS for controlling motivation present:</p> <ul style="list-style-type: none"> - "I figured I always had to go" - "I felt guilty" - "because my friend did" - "always have to live up to his expectations" - "pressures me to finish" <p>FOSTERED by:</p> <ul style="list-style-type: none"> - belief that classes are non-important to future ("stupid classes") - peer pressure (roommates, friends, and parents of friends who attend regularly and value education) - parental expectations / pressure to succeed <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - peer pressure may be especially relevant among peers one looks up to (i.e. "brightest kids I know") <p>CONCLUDED "LEVEL": HIGH</p>

Mastery- Approach Goals	<ul style="list-style-type: none"> - I feel even if they have all the notes posted it's still good to go because then at least you kind of are going to get it more in depth..... I shoot to actually go to the lectures... I shoot to go to the labs to... and the 100 percent attendance - if you're going to take the class you might as well learn something from it. 	<p>KEYWORDS for setting mastery goals:</p> <ul style="list-style-type: none"> - "get it in more depth" - "I shoot to go to lectures ... 100% attendance" - "might as well learn something" <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - unclear whether goal "to attend" is mastery or performance based (i.e. unclear whether attends to learn or attends to improve performance) <p>CONCLUDED "LEVEL": MODERATE</p>
Performance- Approach Goals	<ul style="list-style-type: none"> - I shoot for 80's - yea, I shoot for 80's is what I shoot for - I do try shoot for the 80 - My degree - I am shooting for the double major - I shoot for the number, I could care less what other people do... I shoot for my goal based on me, not what others students are doing - that 80 I shoot for 	<p>KEYWORDS for setting performance goals:</p> <ul style="list-style-type: none"> - "I shoot for 80's" - "shooting for the double major" - "I shoot for the number" <p>KEYWORDS for not setting performance goals:</p> <ul style="list-style-type: none"> - "I could care less what other people do" - "my goal is based on me" <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - goals remain performance based but do not appear to be compared to other students <p>CONCLUDED "LEVEL": MODERATE</p>
Autonomy Satisfaction	<p>it's hard to be free because I, I took a year off to do mechanics, and I found that in that trade I could be myself more than in business... I'm just such an outgoing, not sit around and do paperwork kind of person and everybody in business is sit down and get it done - and I just feel I'm not in that little box</p>	<p>KEYWORDS for low autonomy satisfaction:</p> <ul style="list-style-type: none"> - "hard to be free" - "I feel I'm not in that little box" <p>HINDERED by:</p> <ul style="list-style-type: none"> - experience with previous academic situation in which she felt relatively more autonomous (e.g. trade school) - perception that she is unlike other students in her courses <p>CONCLUDED "LEVEL": LOW</p>
Competence Satisfaction	<ul style="list-style-type: none"> - I suck at Math... I've taken it three times and I failed all three times, I will pass one time - I find if I don't feel comfortable in the class, I don't feel like I'm going to do very well in the class - I did great in Math in High School - I pulled 80s and 90s off in stats, 80s and 90s off in accounting, and I pulled a 30 off in Math - it's just I'm not comfortable in that class, I don't have the confidence or anything 	<p>KEYWORDS for high competence satisfaction:</p> <ul style="list-style-type: none"> - "I will pass one time", "I did great in Math in High School" <p>KEYWORDS for low competence satisfaction:</p> <ul style="list-style-type: none"> - "I suck at math", "I failed three times", "don't have the confidence", "I don't feel comfortable in the class", "I don't feel like I'm going to do very well" <p>HINDERED by:</p> <ul style="list-style-type: none"> - feeling "uncomfortable" in the class - previous demonstrations of low competence (e.g. low achievement) <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - demonstrates past competence by referring to past marks - context dependent; talks mostly about low competence in a specific course but indicates that competence in other courses and in high school is/was higher <p>CONCLUDED "LEVEL": LOW</p>
Academic Dedication	<ul style="list-style-type: none"> - My degree [is my main goal]. I'm going for a double major, so I find I'm taking classes that will work towards both of those majors that I'm shooting for - I have a few friends who never went to university, and a few who did and dropped out and they.. well, they really haven't done anything with their lives... to me that's just not where I see myself... I see myself with a degree and I see myself working in the business world - dropping out just hasn't really been an option [since being in the trades] - I'm going to finish this. There's no ifs ands or buts 	<p>KEYWORDS for high dedication:</p> <ul style="list-style-type: none"> - "I'm taking classes that will work towards ... a double major" - "I see myself with a degree ... working in the business world" - "dropping out... hasn't been an option" - "I'm going to finish this. There's no ifs ands or buts" <p>FOSTERED by:</p> <ul style="list-style-type: none"> - strong desire for future career in chosen area (e.g. business) - knowledge of peers who have dropped out and not wanting the life of these peers <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - high current dedication despite previously leaving university and pursuing trades (previous leave was not 'drop-out' as it was a result of low grades rather than conscious choice) <p>CONCLUDED "LEVEL": HIGH</p>

Academic Achievement	<ul style="list-style-type: none">- failed [math] all three times- I did great in Math in High School - I pulled 80s and 90s off in stats, 80s and 90s off in accounting, and I pulled a 30 off in Math- my GPA was too low so I got kicked out of RDC my first year	<p>KEYWORDS for high achievement:</p> <ul style="list-style-type: none">- “pulled 80s or 90s off” <p>KEYWORDS for low achievement:</p> <ul style="list-style-type: none">- “failed all three times”- “my GPA was too low so I got kicked out” <p>OTHER COMMENTS:</p> <ul style="list-style-type: none">- very variable by class and time (high school vs. university) <p>CONCLUDED “LEVEL”: MODERATE</p>												
Well-being	<ul style="list-style-type: none">- The positives [feelings] are like I’m going to get a degree by the end of this and I’ve met lots of people through university, lots... I volunteered for working with kids through the university and I met lots of people through that- I thought [Philosophy] was the most boring class in the entire world. Like, I just hated it... I hated English- I do try to get assignments done like a week before they’re due because then at least they’re done and they’re out of the way and its less stress	<p>KEYWORDS for high wellbeing:“Positives”</p> <p>KEYWORDS for low wellbeing:“hate”, “stress”</p> <p>FOSTERED by:</p> <ul style="list-style-type: none">- knowledge that one will ultimately obtain a degree- social connections formed through university- time management (e.g. finishing assignments early) <p>CONCLUDED “LEVEL”: MODERATE</p>												
Relationships Between Constructs as Experienced by Interviewee C2														
<p>NO DATA for the following relationships:</p> <table><tr><td>Autonomous Motivation / Academic Achievement</td><td>Performance-Approach Goals / Autonomous Motivation</td></tr><tr><td>Autonomy Satisfaction / Academic Achievement</td><td>Mastery-Approach Goals / Competence Satisfaction</td></tr><tr><td>Autonomy Satisfaction / Well-being</td><td>Mastery-Approach Goals / Well-being</td></tr><tr><td>Competence Satisfaction/ Well-being</td><td>Mastery-Approach Goals / Academic Achievement</td></tr><tr><td>Autonomous Motivation / Controlling Motivation</td><td>Mastery-Approach Goals / Academic Dedication</td></tr><tr><td>Controlling Motivation / Autonomy Satisfaction</td><td>Autonomy Satisfaction / Competence Satisfaction</td></tr></table>			Autonomous Motivation / Academic Achievement	Performance-Approach Goals / Autonomous Motivation	Autonomy Satisfaction / Academic Achievement	Mastery-Approach Goals / Competence Satisfaction	Autonomy Satisfaction / Well-being	Mastery-Approach Goals / Well-being	Competence Satisfaction/ Well-being	Mastery-Approach Goals / Academic Achievement	Autonomous Motivation / Controlling Motivation	Mastery-Approach Goals / Academic Dedication	Controlling Motivation / Autonomy Satisfaction	Autonomy Satisfaction / Competence Satisfaction
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Controlling Motivation / Autonomy Satisfaction	Autonomy Satisfaction / Competence Satisfaction													
Relationships Between Outcome Variables and Motivation Types														
Intrinsic Motivation / Academic Dedication	<ul style="list-style-type: none">- I took a year off to do mechanics, and I found that in that trade I could be myself more than in business, but I enjoyed the business more... I just feel so out of place - but, I really enjoy the business, I’m not going to leave because I feel out of the box - I figure it’s only 4 years, once I’m done school, I’m done.	<p>UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Dedication (positive relationship)</p> <ul style="list-style-type: none">- pre-existing intrinsic motivation toward content of courses lead to high dedication to complete business degree <p>OTHER COMMENTS:</p> <ul style="list-style-type: none">- not mediated by lack of autonomy satisfaction (i.e. enjoys courses and feels dedicated to complete them even though does not feel autonomous within courses)												
Autonomous Motivation / Academic Dedication	<p>I’ve always wanted this degree, always.. I have a few friends who never went to university, and a few who did and dropped out and they.. well, they really haven’t done anything with their lives... to me that’s just not where I see myself... I see myself with a degree and I see myself working in the business world... I went into the trades, and after doing the trades, I realized that the degree is really what I want so that’s when I started working more towards it and ever since then, dropping out just hasn’t really been an option.</p>	<p>RECIPROCAL RELATIONSHIP Autonomous Motivation --> Dedication (positive relationship)</p> <ul style="list-style-type: none">- having “always” experienced motivation to obtain this degree increases her dedication to complete it <p>Dedication -> Autonomous Motivation (positive relationship)</p> <ul style="list-style-type: none">- increased dedication to degree of choice (e.g. after having been forced to pursue another degree for which she was not autonomously motivated to obtain) resulted in increased motivation toward courses needed for degree												
Controlling Motivation / Academic Dedication	<ul style="list-style-type: none">- It’s always there in the back of my head, what [my roommates and their parents] would say [if I dropped out], but I don’t think it has too too much to do with [why I intend to complete my degree]- my dad, if I ever ever dropped out or ever failed or anything, I feel like I never do good enough for him... I always have to live up to his expectations which, I never do. So, I feel that that pressures me to finish a little bit more as well.	<p>UNIDIRECTIONAL RELATIONSHIP Controlling Motivation --> Dedication (positive relationship)</p> <ul style="list-style-type: none">- experience of parental pressure leads to increased dedication to complete degree <p>OTHER COMMENTS:</p> <ul style="list-style-type: none">- controlling motivation from parents appears to have a greater impact on dedication than perceived pressure from peers or parents of peers												

Intrinsic Mot./ Achievement	I struggle more for the 80 in the classes that I don't like	UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Achievement (positive relationship) - low intrinsic motivation makes obtainment of grades more difficult
Controlling Mot. / Achievement	- I struggle more for the 80 in the classes that I don't like [i.e. electives I am forced to take]	UNIDIRECTIONAL RELATIONSHIP Controlling Motivation --> Achievement (negative relationship) - high controlling motivation makes obtainment of high achievement more difficult
Intrinsic Motivation / Well-being	- I thought [Philosophy] was the most boring class in the entire world. Like, I just hated it... I hated English... they were the most pointless classes and I really didn't enjoy them at all	UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Wellbeing (positive relationship) - low intrinsic motivation for a course (e.g., boring, non-enjoyable) leads to negative wellbeing within course (e.g., hating it)
Autonomous Motivation / Well-being	- I hated English.... I just found they were the most pointless classes and I really didn't enjoy them at all, but I needed them for my degree so I took them anyways - I do try to get assignments done like a week before they're due because then at least they're done and they're out of the way and it's less stress	UNIDIRECTIONAL RELATIONSHIP Autonomous Motivation --> Wellbeing (positive relationship) - autonomous motivation to complete course work increases wellbeing by reducing stress - lack of autonomous motivation toward courses (i.e. does not view them as important) related to lower wellbeing (i.e. hate) OTHER COMMENTS: - possible reciprocal relationship if increased well-being leads to stronger autonomous motivation toward increasing future well-being by completing course work - unclear distinction between autonomous motivation toward courses in general and autonomous motivation toward course work
Controlling Motivation / Well-being	- I signed up for philosophy because my friend did and my mom was like "Oh it's a great class" and I was like oh I'll give it a shot. I thought it was the most boring class in the entire world. Like, I just hated it. - It's not just school in general I hate, it's just the stupid classes you have to take. - I always have to live up to his expectations which, I never do... Yes, yes [the pressure from my dad] is ridiculous [and hinders my life satisfaction]	UNIDIRECTIONAL RELATIONSHIP Controlling Motivation --> Wellbeing (negative relationship) - increased controlling motivation (e.g. peer pressure regarding which classes to take, required courses for which one has no choice, and parental pressure to succeed) results in decreased well-being (e.g. hate, decreased life satisfaction).
Relationships Between Outcome Variables and Needs Satisfaction		
Autonomy Satisfaction/ Dedication	it's hard to be free because I, I took a year off to do mechanics, and I found that in that trade I could be myself more than in business... I'm just such an outgoing, not sit around and do paperwork kind of person and everybody in business is sit down and get it done - and I just feel I'm not in that little box, and I just feel so out of place - but, I really enjoy the business, I'm not going to leave because I feel out of the box - I figure it's only 4 years, once I'm done school, I'm done.	UNI-DIRECTIONAL RELATIONSHIP - Autonomy -> Dedication MEDIATED by Intrinsic Motivation: - Autonomy -> Dedication mediated by intrinsic motivation such that if one is intrinsically motivated, having low autonomy does not decrease dedication and if one is not intrinsically motivated, high autonomy does not increase dedication
Competence Satisfaction / Academic Dedication	- I suck at Math, I have to have it, but I've taken it three times and I failed all three times, I will pass one time	NO RELATIONSHIP - low competence satisfaction appears to be unrelated to this student's dedication as failing a course multiple times does not deter her from program or re-taking course OTHER COMMENTS - student's competence in other courses appears to be higher but in responding to competence questions, she only talks about the course in which she has low competence

Competence Satisfaction / Academic Achievement	<ul style="list-style-type: none"> - I suck at Math... I've taken it three times and I failed all three times - I feel that 80 I shoot for, I mean, I can get it no prob. but, if I'm not feeling comfortable or I'm not confident - like Math, when I go into math, I know for a fact I suck at math. I shoot for a 60 in math, like just to pass - and every time I go in there, I just - find I'm not comfortable enough with myself to pass that class - I feel my grades definitely show how I feel in that class - that's for sure. - where I am and my confidence with how I feel in that class definitely is the biggest effect to my marks - I did great in Math in High School - I pulled 80s and 90s off in stats, 80s and 90s off in accounting, and I pulled a 30 off in Math and it's like - it's the same kind of material... it's just I'm not comfortable in that class, I don't have the confidence or anything so it just 	<p>RECIPROCAL RELATIONSHIP Competence Satisfaction --> Achievement (positive relationship) - if low competence satisfaction in a class (e.g. low confidence, low comfort in class), then obtains low achievement (i.e. fail, 30%) - if high competence satisfaction in a class, then high achievement (e.g. 80s, 90s) Achievement --> Competence Satisfaction (positive relationship) - low achievement results in reduced competence satisfaction: "I suck at math"</p> <p>OTHER COMMENTS: - possible distinction between general feeling of competence toward course content and competence satisfaction specifically within course (i.e. failing course does not satisfy competence, yet her general feelings of competency with math is not reduced)</p>
Relationships Between Motivation Types and Needs Satisfaction		
Intrinsic Motivation / Autonomously Motivation	<ul style="list-style-type: none"> - I thought [philosophy] was the most boring class in the entire world. Like, I just hated it... I hated English... I just found they were the most pointless classes and I really didn't enjoy them at all, but I needed them for my degree so I took them anyways. - The classes I enjoy though, I shoot for the 80 because I figure I should know enough of the stuff, if I enjoy it enough, that I should - that the 80 should be no problem. 	<p>RECIPROCAL RELATIONSHIP Intrinsic Motivation --> Autonomous Motivation (positive relationship) - when one enjoys the class, they feel they should engage in the material as it is important to learn the information Autonomous Motivation --> Intrinsic Motivation (positive relationship) - when does not feel course is important to future, decreased enjoyment of course</p>
Intrinsic Mot. / Controlling Mot.	<ul style="list-style-type: none"> - I'm not really interested in [forced electives] but I have to have an [elective] and there's no other one that looks interesting - So, for example, philosophy. I signed up for philosophy because my friend did and my mom was like "Oh it's a great class" and I was like oh I'll give it a shot. I thought it was the most boring class in the entire world. Like, I just hated it. 	<p>CONTEXTUAL RELATIONSHIP - does not have interest for courses that she feels forced to take (e.g. controlling and intrinsic motivation do not co-exist); however, does not discuss whether there is a causal relationship or simply context specific in regards to this specific course (i.e. she may enjoy other forced electives although she does not currently indicate interest in them)</p>
Intrinsic Motivation / Autonomy Satisfaction	<ul style="list-style-type: none"> - I took a year off to do mechanics, and I found that in that trade I could be myself more than in business, but I enjoyed the business more - I'm just such an outgoing, not sit around and do paperwork kind of person and everybody in business is sit down and get it done - and I just feel I'm not in that little box, and I just feel so out of place - but, I really enjoy the business - The [electives] I sign up for, like I'm not really interested in but I have to have an option and there's no other one that looks interesting 	<p>UNIDIRECTIONAL RELATIONSHIP Autonomy Satisfaction --> Intrinsic Motivation (positive relationship) - classes that she does not choose autonomously are perceived as less interesting</p> <p>OTHER COMMENTS: - BUT program in which she does not feel free to be herself (business) is enjoyed more than program in which she feels more autonomous (trades school) - "electives" imply courses that are autonomously chosen; however, as these courses are outside one's major, students often perceive them as "forced classes" that they do not autonomously choose - distinction between classes autonomously chosen and autonomy to be one's self</p>
Intrinsic Mot./ Competence Sat.	<ul style="list-style-type: none"> - The classes I enjoy ... I figure I should know enough of the stuff, if I enjoy it enough, that I should - that the 80 should be no problem. 	<p>UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Competence Satisfaction (positive relationship) - she feels more competent to obtain high marks in courses for which she is intrinsically motivated</p>

Autonomous Motivation / Autonomy Satisfaction	<ul style="list-style-type: none"> - I've always wanted to take business and I've always been a big school person because my mom's a teacher and I find I've always been big into school - But I find the lack of freedom has nothing to do with why I was motivated to go or anything - it's hard to be free because I, I took a year off to do mechanics, and I found that in that trade I could be myself more than in business... I just feel so out of place ... I figure it's only 4 years, once I'm done school, I'm done. 	NO RELATIONSHIP <ul style="list-style-type: none"> - does not feel strong previous autonomous motivation to attend university is related to current lack of autonomy to be herself while in university - does not feel current lack of autonomy to be herself is related to future autonomous motivation toward university in general
Autonomous M/ C. Sat.	No, no [I do not feel my sense of competence at university is related to my motives for engaging in academic activities] because whether I'm comfortable in the class or not, I still go. I feel I should still go.	NO RELATIONSHIP <ul style="list-style-type: none"> - does not perceive relationship between autonomous motivation to attend classes with competence satisfaction in classes because she attends all classes regardless of competence satisfaction
Controlling Motivation / Competence Satisfaction	<ul style="list-style-type: none"> - I suck at Math, I have to have it, but I've taken it three times and I failed all three times, I will pass one time 	CONTEXTUAL RELATIONSHIP <ul style="list-style-type: none"> - in context of high controlling motivation (a class she is forced to take to meet degree requirements), she continues to fail and do poorly, demonstrating low competence; yet, her personal sense of competence appears to not be hindered as she maintains that she "will pass one time" - no evidence of a causal relationship between controlling motivation and competence satisfaction
Relationships Between Achievement Goal Theory Constructs and Outcomes		
Mastery-Goals / Performance-Goals	<ul style="list-style-type: none"> - I shoot for the number, I could care less what other people do. I am there for myself, not for them - so, I shoot for my goal based on me, not what others students are doing - my main goal entirely during school is to get my degree 	CONCEPTUAL SIMILARITY <ul style="list-style-type: none"> - no clear distinction between mastery and performance goals as main goal is to a certain numerical grade which reflects the demonstration of competence (performance goal) but this grade is not compared to other students and is based on her own personal standards (mastery goal) - unclear whether goal "to get degree" reflects desire to demonstrate competence (performance goal) or desire to acquire knowledge (mastery goal)
Performance-Goals / Dedication	my main goal entirely during school is to get my degree - but I find goals in individual classes doesn't really have anything to do with my end goal because I could shoot for 60s and still get my end goal... my goals have nothing to do with my overall getting my degree.	NO RELATIONSHIP <ul style="list-style-type: none"> - does not feel that dedication to completing degree influences the type of performance goal set as setting lower goals would still lead to obtainment of degree - no evidence that specific performance goals set influences degree of dedication in any way
Perf. Goals / Achievement	<ul style="list-style-type: none"> - I shoot for 80's - yea, I shoot for 80's is what I shoot for - I do try shoot for the 80 - that 80 I shoot for 	CONCEPTUAL SIMILARITY <ul style="list-style-type: none"> - defines performance goals in terms of academic achievement (e.g. 80% used as indicator of having obtained a performance goal / demonstrated her competence)
Performance-Approach Goals / Well-being	I shoot for my goal based on me, not what others students are doing, because... there are some students I'll never beat... if you shoot for that goal and you don't beat them, then you just get down on yourself, and that's just... no - no, I shoot for my goal.	RECIPROCAL RELATIONSHIP Performance-approach goals --> Wellbeing (positive relationship) - if she's not obtaining performance goals, she experiences low wellbeing Wellbeing -> Performance-approach goals (negative relationship) - desire to preserve high well-being causes her to avoid setting performance goals as she recognizes not obtaining these goals will hinder her well-being OTHER COMMENTS: - recognition of the influence of performance goals on well-being causes her to adopt mastery goals instead
Relationships Between Achievement Goal Theory and Self-Determination Theory Constructs		
Mast. Goals / Intrinsic Mot	<ul style="list-style-type: none"> - I hated the class, but I did learn a lot. I took a lot out of it, as well as, there was [another class], I hated the class but there was a lot I took out of it. I learned how to work with Word and Excel 	NO RELATIONSHIP <ul style="list-style-type: none"> - student is able to "learn a lot" (i.e. achieve mastery goal) even if she has no intrinsic motivation for a course (i.e. "hated the class")

Mastery- Approach Goals / Autonomou s Motivation	<ul style="list-style-type: none"> - you didn't really have to go to the class to understand what was going on on - but, I feel even if they have all the notes posted it's still good to go because then at least you kind of are going to get it more in depth - I find if you're going to take the class you might as well learn something from it. 	RECIPROCAL RELATIONSHIP Autonomous Motivation --> Mastery-approach Goals (positive relationship) - attending class even though she does not "have to go" leads to easier attainment of mastery goals and the adoption mastery goals: "you might as well learn" Mastery-approach Goals --> Autonomous Motivation (positive relationship) - desire to fully understand the material "in depth" leads to greater motivation to autonomously attend the course OTHER COMMENTS: - "might as well learn" may not reflect high personal desire to learn but does reflect personal value placed on learning
Mastery- Approach Goals / Controlling Motivation	<ul style="list-style-type: none"> - I find if you're going to take the class [including classes you feel forced to take such as philosophy] you might as well learn something from it... I did learn a lot from philosophy - I hated the class, but I did learn a lot 	CONTEXTUAL RELATIONSHIP - controlling motivation and mastery goals are able to co-exist but do not appear to influence each other - in classes in which she experiences strong controlling motivation, she still sets and obtains mastery goals - existence and obtainment of mastery goals appears to be in spite of controlling motivation rather than caused by controlling motivation OTHER COMMENTS: - possible that highly mastery goal orientated students adopt and obtain mastery goals even when experiencing high controlling motivation or that controlling motivation and mastery goals are entirely unrelated
Mastery- Approach Goals / Autonomy Satisfaction	<p>I feel my freedom has nothing to do with the goals I set because whether I have to take the class or not, that goal is there</p>	NO RELATIONSHIP - does not perceive a relationship between her sense of autonomy satisfaction and mastery goals as she sets the same goals regardless of autonomy in class OTHER COMMENTS: - perceives autonomy satisfaction as fluid but goals as constant - possible that highly mastery goal orientated students set mastery goals regardless of satisfaction of need for autonomy
Performanc e-Goals / Intrinsic Mot.	<p>The classes I enjoy though, I shoot for the 80 because I figure I should know enough of the stuff, if I enjoy it enough, that I should - that the 80 should be no problem.</p>	UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Performance-approach Goals (positive relationship) - being intrinsically motivated in a class causes her to set higher performance goals and makes attainment of these goals easier
Performanc e-Approach Goals / Controlling Motivation	<ul style="list-style-type: none"> - sometimes I shoot for the 80 because I need it - like, the classes I take because I have to for the options and stuff, I shoot for the 80 because that 80 will go toward my major. - my dad, if I ever ever dropped out or ever failed or anything, I feel like I never do good enough for him and so I always shoot higher to make him feel like I did something 	RECIPROCAL RELATIONSHIP Controlling Motivation --> Performance-approach Goals (positive relationship) - high pressure from parents causes her to set higher performance goals in order to demonstrate satisfactory competence for parents - feeling forced to take a course to complete degree requirements also leads to the adoption of performance goals as she realizes these goals will go toward her major and thus are "needed" Performance-approach Goals --> Controlling Motivation - adopting high performance goals (i.e. 80's) may also lead to increased self-pressure as she feels she "needs" to obtain them
Performanc e-Approach Goals / Autonomy Satisfaction	<p>I feel my freedom has nothing to do with the goals I set because whether I have to take the class or not, that goal is there</p>	NO RELATIONSHIP - does not perceive a relationship between her sense of autonomy satisfaction and performance goals as she sets the same goals regardless of autonomy in class OTHER COMMENTS: - perceives autonomy satisfaction as fluid but goals as constant - possible that highly performance goal orientated students set performance goals regardless of satisfaction of need for autonomy
Performanc e-Approach Goals / Competence Satisfaction	<ul style="list-style-type: none"> - I feel that the 80 I shoot for, I mean, I can get it no prob. but, if I'm not feeling comfortable or I'm not confident - like Math, when I go into math, I know for a fact I suck at math. I shoot for a 60 in math, like just to pass - and every time I go in there, I just - find I'm not comfortable enough with myself to pass that class that I never actually work hard enough at it - [I lower my goal] because of how I feel about that class... I did great in Math in High School - I pulled 80s and 90s off in stats, 80s and 90s off in accounting, and I pulled a 30 off in Math and it's like - it's the same kind of material... it's just I'm not comfortable in that class, I don't have the confidence or anything so it just 	RECIPROCAL RELATIONSHIP Competence Satisfaction --> Performance-approach Goals (positive relationship) - competence satisfaction influences performance-approach goals such that she sets goals she feels competent to achieve; if low competence satisfaction (e.g. in math) she sets low performance goals (i.e. 60s) but if high competence satisfaction she sets high goals (i.e. 80s) - competence satisfaction also influences obtainment of performance goal such that feeling competent enhances ability to obtain goals Performance-approach Goals --> Competence Satisfaction (positive relationship) - not obtaining a performance goal hinders competence satisfaction (i.e. in high school she "did great" and thus felt competent while in university she failed and thus did not feel competent: "I'm not feeling comfortable or I'm not confident")

E-11. VARIABLE MATRIX FOR INTERVIEWEE C3

Explanations of Constructs as Experienced by Interviewee C3

Construct	Explanation	Comments
Intrinsic Motivation	<ul style="list-style-type: none"> - I find ... if you enjoy something a lot more, you're going to do better in it ... just gotta figure out what you want to take... studying the subject you're interested in, it's a lot easier to do more than something you're not interested in - I just find [most interesting] something that you could use in real life situations like for a job - I like, just taking courses that I like and I guess I just want to do well at these courses because I find them interesting - I'm more engaged probably in those courses because I like them more and I probably just spend more time like studying and... I guess reading the textbook and stuff - I would choose the courses that I would be interested and those would help me get more motivation to study than taking the courses that someone else would pick for me that I wouldn't be interested in - I enjoy it [attending university] - because I enjoy it, it makes me more interested in the subject 	<p>KEYWORDS for intrinsic motivation present:</p> <ul style="list-style-type: none"> - enjoy, interest, like <p>KEYWORDS for intrinsic motivation not present:</p> <ul style="list-style-type: none"> - non-interest <p>FOSTERED by:</p> <ul style="list-style-type: none"> - choosing what you want to take - applicability to real life situations - interest fostered by enjoyment <p>HINDERED by:</p> <ul style="list-style-type: none"> - taking courses someone else chooses <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - talks about hypothetical 'you' rather than about his own personal reflections <p>CONCLUDED "LEVEL": MODERATE</p>
Autonomous Motivation	<ul style="list-style-type: none"> - to learn more and gain value from going to school - I just think that if you don't, like attend class or do - like study more ... it's going to be hard to attain all of the information and be able to remember and use it in real life situations - a little bit of myself and wanting to do well - something I can use in the business world to help me in life... advance my career or make me like know the environment better so I can see why a company might do like certain moves and stuff... [for example] I'm taking an HR course, so that really helps me figure like interview processes so I know what to do during an interview and what kind of questions and why they're asking these questions to get the information from me - I just think they're necessary to achieve your goals in school and to... just to help you become a better student and stuff.... and help you become a better person like for the real world and see like... like most jobs you will have you put in extra time just to make the course - I guess if it makes me get a self purpose, like, I've actually learned something and I'm actually using this education for a good reason, not just to pass classes and get a degree - Yea, like, to be able to use it in a real world situation, and not just be able to answer a question on a test - if I ever encounter a situation like that during my job, I'll know what to do better than them and, I guess, hopefully that will give me an advantage for a job in the future. - I would say so, yea, the goals that I set would definitely be important - if you know the subject and stuff, you're going to be a lot more confident taking the test and going to class than if you never studied or read the book before, yea... you'll be more... yea, you'll be more obliged to participate in class and do your homework - I just think it's just something I have to do to... umm obtain what goals I want in my life... and just... how I want to live my life - I just feel that I should... to obtain my ... goals that I set for my life and stuff, I need a university degree get - to help me get those goals... and to help me succeed in life ...and enjoy the lifestyle that I have previously... that my parents have led for me... like, let me grow up in - to succeed and to obtain a job when I'm done... to take advantage of the opportunity that I've been given - I want to finish it myself just to feel self accomplishment... to feel good I guess - I just want to complete it, and... make sure that I know that I can... I guess use the degree to my advantage and just to... make sure I know... what to expect from the degree and like what potential jobs that I could obtain 	<p>KEYWORDS for autonomous motivation present:</p> <ul style="list-style-type: none"> - I [attend to] gain value, I can use, self-purpose, important, to feel self accomplishment <p>KEYWORDS for autonomous motivation not present:</p> <ul style="list-style-type: none"> - I have to do, need a degree <p>FOSTERED by:</p> <ul style="list-style-type: none"> - desire to attain information long-term for use in "real life" for a "good reason" - real world applicability - desire for competitive advantage in future job market - desire to be confident in class - <p>HINDERED by:</p> <ul style="list-style-type: none"> - belief it is not the only way to achieve life goals <p>CONCLUDED "LEVEL": MODERATE</p>

Controlling Motivation	<ul style="list-style-type: none"> - Well I feel like [the pressure comes]... kind of like - from, maybe a little bit of myself and wanting to do well and for my family, since they're paying for some of my school as well, for me to go, I don't want to let them down and not be able to succeed or do poorly in class - I just think if you're going to spend all this money to go to school you might as well take advantage of it and not waste it. - I just think it's just something I have to do - I just feel that I should. - I need a university degree - to... make my parents proud I guess... and not to waste my money - I feel pressure from my parents to finish it ... they just want to make me - or, they want to see me do well in life and they want me to - just to see me succeed and so do I, so... and they just want to make sure that I have everything I need to succeed in life - they're not forcing me to take a business degree 	<p>KEYWORDS for controlling motivation present:</p> <ul style="list-style-type: none"> - I don't want to let [family] down, they're paying, not waste "all this money, I have to do, I should, I need a degree, to make parents proud, pressure <p>-</p> <p>KEYWORDS for controlling motivation not present:</p> <ul style="list-style-type: none"> - not forcing me <p>FOSTERED by:</p> <ul style="list-style-type: none"> - desire to please family who is paying for education - belief that one should not "waste" money - desire to make family proud - belief that degree is needed - belief that family wants to see him complete degree and succeed <p>HINDERED by:</p> <ul style="list-style-type: none"> - not feeling forced <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - pressure also comes from self, strong personal desire to do well - experiences pressure to please family not does not feel "forced by family" <p>CONCLUDED "LEVEL": MODERATE</p>
Mastery-Approach Goals	<ul style="list-style-type: none"> - [I engage in academic activities] to understand the courses better and... actually to uh... to learn more and gain value from going to school - to attain all of the information - try to... try make sure I know it before I move on to the next process, or next... subject or area - yea, just try to make sure I know what it is they're talking about and how I can use it in a situation or understand it - to - just the understanding of the question - to remember it after I take the course, like just - just don't say, just so I can pass the test, study it so I can remember it for later on... and use it for my experience in my jobs and stuff. - retaining the information, yea - just trying to retain - or obtain and retain it - I've actually learned something - I always like to do the best that I can - I guess even retaining, like, being able to know this stuff for like the external environments, for like the business environment and stuff - I think my main goal is just for me to know it and just being able to use it - Yea, I think [my main focus] would be personal understanding [compared to outperforming others] - I just more want to retain this information and use it - trying to understand - just wanting to do the best I can - no, I just try make sure I'm doing my best and I don't really factor in the external, like the other people and stuff know the subject and stuff - just trying to succeed in doing my best - know the... the material and be able to use it in real life situations - to be able to... fully understand all this stuff that like... to the degree that I want to take, like for my major 	<p>KEYWORDS for setting mastery goals:</p> <ul style="list-style-type: none"> - to understand better, learn more, gain value, attain all of the information, to remember it long-term, retaining information, do the best that I can, personal understanding, fully understand <p>FOSTERED by:</p> <ul style="list-style-type: none"> - desire to use information in a "real" situation or at future job - desire to be prepared for next subject - desire for long-term retainment of information <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - does not compare himself to others ("do my best"), but unclear how he defines "best" (i.e. may be grades or performance based) <p>CONCLUDED "LEVEL": HIGH</p>
Performance-Approach Goals	<ul style="list-style-type: none"> - to do better in class, obviously - able to remember and use it in real life situations - wanting to do well - to make sure I know what it is they're talking about and how I can use it in a situation - to be able to answer the question correctly - to be able to know it for the test - use it for my experience in my jobs and stuff - to succeed I guess - I think it's just like the competitive aspect of myself ... I always like to do the best that I can and try to do better than other people - better scores I guess - to use it in a real world situation, and not just be able to answer a question on a test - I would like to do better than my friends, obviously - I have more experience than them if they forget that ... if I ever encounter a situation like that during my job, I'll know what to do better than them - I just want to do well - trying to do better than other people - hopefully do better than others - I would say I have a higher grade expectation and feel I should do better [get higher grades] in that class - to succeed and get my degree - I set goals to do well - I just want to make sure I do well and obtain my goals 	<p>KEYWORDS for setting performance goals:</p> <ul style="list-style-type: none"> - do better, do well, answer the question, know it for the test, to succeed, competitive aspect, better scores, want to do better than others, I should do better, higher grade expectation <p>FOSTERED by:</p> <ul style="list-style-type: none"> - desire to remember and use information in "real life situations" - desire to understand information - general competitive drive - desire to do well on a test or assignment - desire to do better than his friends - desire for competitive edge in future job <p>CONCLUDED "LEVEL": HIGH</p>

Autonomy Satisfaction	<ul style="list-style-type: none"> - there's just so many [options] you can choose whatever program you want to go in to and whatever classes and when you want to take them and which teachers you want, so I think you just can pick anything - Yea, like when to go to the lab and what times you study and when you should be and shouldn't be studying and making sure you don't over study - I think just living on your own and stuff would help [make you feel free to choose] and just being able to have the right to choose which classes and which times and stuff, I think that makes me... - and be able to study at my times, like when I feel the best and... it.... it helps me the best to... to study - that would be a free choice to study more and go to class and stuff because I can always choose not to... to choose that too - if the classes were on the university time schedule [then I don't have a choice which ones to take] 	<p>KEYWORDS for high autonomy satisfaction:</p> <ul style="list-style-type: none"> - just can pick anything, can choose whatever, right to choose, free choice <p>FOSTERED by:</p> <ul style="list-style-type: none"> - breadth of options, large number of programs and courses, courses offered at multiple times, choice of instructor - feeling free to choose when to study or not study - living "on your own" <p>HINDERED by:</p> <ul style="list-style-type: none"> - required courses with few time/professor options <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - speaks primarily about the availability of many options rather than about his freedom to choose any option <p>CONCLUDED "LEVEL": MODERATE</p>
Competence Satisfaction	<ul style="list-style-type: none"> - unless you're like super smart - I just think its from experience, since I'm not a first year student, I've already gone to school before, and I've been through the process and I know what to expect and what to do if I'm facing - in not the best situation for a class, so, I know how to adapt to it... so I think that's maybe why I feel confident... or competent - I feel competent in classes - how I feel about the class - if I was to take a class that I wasn't confident in - maybe wasn't kind of my best strong suit. - feel like you accomplished something 	<p>KEYWORDS for high competence satisfaction:</p> <ul style="list-style-type: none"> - super smart, experience, how to adapt, I feel confident, I feel competent, my best strong suit, accomplished something <p>FOSTERED by:</p> <ul style="list-style-type: none"> - having completed past years of university, knowing what to expect <p>CONCLUDED "LEVEL": MODERATE</p>
Academic Dedication	<ul style="list-style-type: none"> - I just think [obtaining a degree is] just something I have to do to... umm obtain what goals I want in my life... and just... how I want to live my life ... it just doesn't seem like I have a reason to drop out and not obtain the degree - I need a university degree get - to help me get those goals... and to help me succeed in life ...and enjoy the lifestyle that I have previously... that my parents have led for me. - I want to finish it - I just want to complete it 	<p>KEYWORDS for high dedication:</p> <ul style="list-style-type: none"> - I have to, no reason to drop out and not obtained degree, need a degree, I want to finish, want to complete it <p>FOSTERED by:</p> <ul style="list-style-type: none"> - belief that degree is needed to obtain life goals - belief that one's lifestyle would have to change if one did not obtain a degree <p>CONCLUDED "LEVEL": HIGH</p>
Academic Achievement	<ul style="list-style-type: none"> - my grades - what I should get like for grades wise - grade expectation - [by "do better in the class" I mean] Better grades, yea 	<p>KEYWORDS for high achievement:</p> <ul style="list-style-type: none"> - my grades, should get for grades, better grades, grade expectation <p>CONCLUDED "LEVEL": MODERATE (unknown?)</p>
Well-being	<ul style="list-style-type: none"> - makes me get a self purpose - enjoy the lifestyle that I have previously... that my parents have led for me - to feel good I guess - I feel satisfied - you feel better about yourself. - makes me feel better about myself 	<p>KEYWORDS for high wellbeing:</p> <ul style="list-style-type: none"> - get a self purpose, feel good, satisfied, feel better about myself <p>FOSTERED by:</p> <ul style="list-style-type: none"> - having previously lived a subjectively positive lifestyle <p>OTHER COMMENTS: talks in terms of hypothetical "you"</p> <p>CONCLUDED "LEVEL": MODERATE</p>
Relationships Between Constructs as Experienced by Interviewee C3		

NO DATA for the following relationships: Intrinsic Motivation / Academic Achievement Controlling Motivation / Academic Achievement Autonomy Satisfaction / Academic Dedication Competence Satisfaction / Academic Dedication Autonomy Satisfaction / Academic Achievement Autonomy Satisfaction / Well-being Autonomous Motivation / Autonomy Satisfaction Controlling Motivation / Autonomy Satisfaction Controlling Motivation / Competence Satisfaction Autonomy Satisfaction / Competence Satisfaction Mastery-Approach Goals / Academic Dedication Mastery-Approach Goals / Academic Achievement		
Relationships Between Outcome Variables and Motivation Types		
Intrinsic Motivation / Dedication	- I enjoy it to, so it just doesn't seem like I have a reason to drop out and not obtain the degree.	UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Dedication (positive relationship) - intrinsic motivation (i.e. enjoyment of academic activities) causes increased dedication to complete degree as no reasons are seen for dropping
Autonomous Motivation / Academic Dedication	- I'm actually using this education for a good reason, not just to pass classes and get a degree. - to... obtain what goals I want in my life ... how I want to live my life, I don't think ... it just doesn't seem like I have a reason to drop out and not obtain the degree - I just feel that I should... to obtain my - the goals that I - or the goals that I set for my life and stuff, I need a university degree get - to help me get those goals... and to help me succeed in life ...and enjoy the lifestyle that I have previously... that my parents have led for me - I want to finish it myself just to feel self accomplishment... to feel good I guess - I just want to complete it, and... make sure that I know that I can... I guess use the degree to my advantage and just to... I guess... just make sure I know... what to expect from the degree and like what potential jobs that I could obtain	UNIDIRECTIONAL RELATIONSHIP Autonomous Motivation --> Dedication (positive relationship) - autonomous motivation to "obtain what goals I want in my life ... how I want to live my life" is related to increased dedication to complete one's degree: "I need a university degree... to help me get those goals... and to help me succeed in life" CONCEPTUAL SIMILARITY - high autonomous motivation to obtain a degree is conceptually similar to high dedication: "I just want to complete it"; "I want to finish it myself just to feel self accomplishment" OTHER COMMENTS: - autonomous motivation appears primary (wants education for self accomplishment, to do good) and obtainment of degree secondary
Controlling Mot. / Dedication	- I just think it's just something I have to do to - I just feel that I should... to obtain ... the goals that I set for my life and stuff, I need a university degree get - to help me get those goals... and to help me succeed in life - I feel pressure from my parents to finish it	CONCEPTUAL SIMILARITY - high controlling motivation to obtain a degree is conceptually similar to high dedication: "I feel pressure from my parents to finish it"; "it's just something I have to do to"; "I need a university degree"
Autonomous Mot. / Achievement	- if I studied more ... and I feel confident about this class, I definitely feel that my grades reflect that - I would say... studying on your free time [is the most powerful contributor to my grades]... well actually probably going to class every day and just making sure that you're up to date and knowing what the teacher expects	UNIDIRECTIONAL RELATIONSHIP Autonomous Motivation --> Achievement (positive relationship) - autonomous motivation to engage in academic activities (studying more, attending lectures, keeping up with course content) is related to higher achievement (grades) - possibly MEDIATED by competence satisfaction or obtainment of mastery goals
Intrinsic Motivation / Well-being	- because I enjoy it, it makes me more interested in the subject and makes it easier I guess to obtain that goal ... I feel good about it - the course I enjoy actually ... they make me feel better for sure and... and I'm enjoying what I'm doing and then the goals would help complete that I guess cycle	UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Wellbeing (positive relationship) - intrinsic motivation (enjoyment, interest) in a subject is related to positive well-being ("I feel good about it", "make me feel better") possibly MEDIATED by mastery or performance goals

Autonomous Motivation / Well-being	<ul style="list-style-type: none"> - if it makes me get a self purpose, like, I've actually learned something and I'm actually using this education for a good reason - I need a university degree ... to help me get those goals... and to help me succeed in life ...and enjoy the lifestyle that I have previously... that my parents have led for me - I want to finish it myself just to feel self accomplishment... to feel good I guess - I'd say going to class makes me feel better about myself than just sleeping in and not going to class just because I don't feel like - I don't feel it's necessary, I think it makes me feel better then that helps me to obtain my goals and do better in school, so that helps me - my well-being better too - I guess it helps me complete my goals better... just the satisfaction I guess of.. not being lazy and going to class 	<p>RECIPROCAL RELATIONSHIP</p> <p>Autonomous Motivation --> Wellbeing (positive relationship)</p> <ul style="list-style-type: none"> - autonomous motivation to attend classes is related to higher well-being: "going to class makes me feel better about myself than just sleeping in ... it makes me feel better" <p>possibly MEDIATED by obtainment of mastery or performance goals</p> <p>Wellbeing -> Autonomous Motivation (positive relationship)</p> <ul style="list-style-type: none"> - desire for positive well-being in the future (ability to continue enjoying my lifestyle, to feel self-accomplished, to get a self-purpose) causes one to be autonomously motivated toward academic activities in the present
Controlling Motivation / Well-being	<ul style="list-style-type: none"> - I just feel that I should... to obtain my ... goals that I set for my life and stuff, I need a university degree .. to help me get those goals... and to help me succeed in life ... and enjoy the lifestyle that I have previously... that my parents have led for me - they just want to make sure that I have everything I need to succeed in life... and to be able to enjoy life 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Wellbeing -> Controlling Motivation (positive relationship)</p> <ul style="list-style-type: none"> - desire for future well-being is related to internalized pressure to obtain a university degree: "I need a university degree ... to enjoy the lifestyle that I have previously" - experiences parental pressure to attend university so that he is "able to enjoy life"
Relationships Between Outcome Variables and Needs Satisfaction		
Competence Satisfaction / Academic Achievement	<ul style="list-style-type: none"> - if I studied more, I'm definitely going to - and I feel confident about this class, I definitely feel that my grades reflect that 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Competence Satisfaction --> Achievement (positive relationship)</p> <ul style="list-style-type: none"> - increased competence satisfaction as a result of studying leads to increased achievement (i.e. he believes his grades reflect competence satisfaction) <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - activities used to ensure competence is satisfied (i.e. studying) are more likely the covariate that is causally related to achievement
Competence Sat. / Well-being	<ul style="list-style-type: none"> - doing something that you set out to do definitely makes you feel like you accomplished something, makes you feel better about yourself 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Competence Satisfaction -> Wellbeing (positive relationship)</p> <ul style="list-style-type: none"> - competence satisfaction causes increased well-being: "doing something that you set out to do definitely ... makes you feel better about yourself"
Relationships Between Motivation Types and Needs Satisfaction		
Intrinsic Motivation / Autonomous Motivation	<ul style="list-style-type: none"> - I just find [most interesting] something that you could use in real life situations like for a job and since I'm in the business program, something I can use in the business world to help me... advance my career or make me ... know the environment better so I can see why a company might do like certain moves - to ... obtain what goals I want in my life... and just... how I want to live my life, I don't think ...and I just feel like... I enjoy it too 	<p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - the content that this student feels is most important to obtain is also what he finds most interesting (that which could be used in real life situations) <p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - intrinsic and autonomous motivation can co-exist within the same context
Intrinsic Motivation / Controlling Mot.	<ul style="list-style-type: none"> - I just think it's just something I have to do to... obtain what goals I want in my life... and just... how I want to live my life ... and I just feel like... I enjoy it - I think [parental pressure is] positive, it's just kind of a nudge in the right direction ... to make sure that I concentrated and make sure that I really want to do this.... I would say that they're not forcing me to take a business degree, they're just making sure that this is what I like to enjoy and if I do, just to do the best at it 	<p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - intrinsic and controlling motivation can co-exist in the same context: "it's something I have to do ... I enjoy it" - possibly only possible if one embraces parental pressure: "it's just kind of a nudge in the right direction ... they're not forcing me to take a business degree" - one can feel parental pressure to do what one enjoys doing

Autonomous Motivation / Controlling Motivation	<ul style="list-style-type: none"> - maybe a little bit of [the pressure comes from] myself and wanting to do well and for my family - I just think if you're going to spend all this money to go to school you might as well take advantage of it and not waste it - I just think it's just something I have to do to... obtain what goals I want in my life... and just... how I want to live my life - I just feel that I should... to obtain ... the goals that I set for my life ... I need a university degree ...to help me get those goals... and to help me succeed in life ...and enjoy the lifestyle that I have previously... that my parents have led for me... like, let me grow up in - to succeed and to obtain a job when I'm done... and probably just to... make my parents proud ... and not to waste my money... and to... take advantage of the opportunity that I've been given - I would say both, I feel pressure from my parents to finish it and I want to finish it myself just to feel self accomplishment - Yea, I think it's positive, it's just kind of a nudge in the right direction I guess, just to make sure that I concentrated and make sure that I really want to do this.... I would say that they're not forcing me to take a business degree, they're just making sure that this is what I like to enjoy and if I do, just to do the best at it 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Controlling Motivation -> Autonomous Motivation (positive relationship, conditional)</p> <ul style="list-style-type: none"> - high controlling motivation may lead to autonomous motivation if one shares the values of those whom are pressuring: "I feel pressure from my parents to finish it and I want to finish it myself just to feel self accomplishment"; "I would say that they're not forcing me to take a business degree, they're just making sure that this is what I like" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - when external pressures are embraced by the student and they share the values of those who pressure them, their autonomous motivation may be experienced more like controlling motivation: "[the pressure comes from] myself and wanting to do well and for my family"; "I just think it's just something I have to do to"; "to... make my parents proud ... and not to waste my money... and to... take advantage of the opportunity that I've been given"
Intrinsic Motivation / Autonomy Satisfaction	<ul style="list-style-type: none"> - Yea, Yea, because I would choose the courses that I would be interested and those would help me get more motivation to study than taking the courses that someone else would pick for me that I wouldn't be interested in 	<p>UNIDIRECTIONAL RELATIONSHIP Autonomy Satisfaction -> Intrinsic Motivation (positive relationship; conditional upon intrinsic motivation)</p> <ul style="list-style-type: none"> - when one's autonomy is satisfied (i.e. they are free to choose their own courses) they become more intrinsically motivated as a direct result of choosing courses in which they are interested; unknown how autonomy satisfaction would affect intrinsic motivation if intrinsic motivation was initially low (i.e. student would be free to choose courses but would be 'forced' to choose an uninteresting course if no courses they are interested in were available). <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - intrinsic motivation will lead to greater enhancement of intrinsic motivation IF one's autonomy is also satisfied
Intrinsic Motivation / Competence Satisfaction	<ul style="list-style-type: none"> - I would say how I feel about the class - like if I feel... interested in it, I would say I have a higher grade expectation and feel I should do better in that class than if I was to take a class that I wasn't confident in and I wasn't really interested in or maybe wasn't kind of my best strong suit. 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Intrinsic Motivation --> Competence Satisfaction (positive relationship)</p> <ul style="list-style-type: none"> - intrinsic motivation (interest in course) is related to increased competence satisfaction (higher grade expectation, belief one should do better in the class)
Autonomous Motivation / Competence Satisfaction	<ul style="list-style-type: none"> - I just think that if you don't ... attend class or ... study more, or unless you're like super smart it's going to be hard to attain all of the information and be able to remember and use it in real life situations - if I studied more, I'm definitely going to - and I feel confident about this class - Yea...yea.... mmmm... [I feel that your sense of competence then is also influenced by the amount of time that you study] 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Autonomous Motivation --> Competence Satisfaction (positive relationship)</p> <ul style="list-style-type: none"> - autonomous motivation to engage in academic activities (attend class, study more) is related to increased competence satisfaction (feeling confident about the class) <p>MEDIATED by obtainment of Mastery goals</p>
Relationships Between Achievement Goal Theory Constructs and Outcomes		

Mastery- Approach Goals / Performance -Approach Goals	<ul style="list-style-type: none"> - [I engage in academic activities] to understand the courses better and ... to learn more and gain value from going to school... And to do better in class, obviously - to attain all of the information and be able to remember and use it in real life situations - to make sure I know what it is they're talking about and how I can use it in a situation or understand it - to be able to answer the question correctly or be able to - just the understanding of the question ... to be able to know it for the test and be able to remember it after I take the course ... [not] just so I can pass the test, study it so I can remember it for later on... and use it for my experience in my jobs - just trying to retain ... it for future use and for the test - I think it's just like the competitive aspect of myself ... I always like to do the best that I can and try to do better than other people I guess.... [I mean better than in terms of] better scores I guess... or I guess even retaining ... being able to know this stuff for ... the business environment - I think [my main focus] would be personal understanding, but I would like to do better than my friends, obviously ... my main goal is just for me to know it and just being able to use it - I just want to do well at these courses ... I just more want to retain this information and use it - just wanting to do the best I can and trying to do better than other people. - just trying to do my best and hopefully do better than others - my goals are just to do my best and study - trying to succeed in doing my best - [by "do better in the class" I mean] Better grades, yea... and to be able to... know the... the material and be able to use it in real life situations - to succeed and get my degree and to be able to... fully understand all this stuff 	<p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - mastery (understand, learn, gain value, attain all of the information, remember the information, personal understanding, retain this information, know the material) and performance goals (to do better, use the information in real life, answer the question correctly, do the best, do better than other people, do well, better grades) exist simultaneously in the same contexts but are clearly understood as conceptually different forms of goals <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - "do the best that I can" or "do well" unclear whether these reflects mastery or performance goals <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - student states desire to obtain performance goals (do better in class, do better than my friends) is "obvious" suggesting he believes all students have this desire - claims primary goal is mastery (personal understanding) but also sets many performance goals
Mastery- Approach Goals / Well-being	<ul style="list-style-type: none"> - if it makes me get a self purpose, like, I've actually learned something and I'm actually using this education for a good reason - makes it easier I guess to obtain that goal... make sure I just - I feel good about it 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Mastery-approach Goals --> Wellbeing (positive relationship; conditional upon obtainment of mastery goal)</p> <ul style="list-style-type: none"> - if one obtains a mastery goal (i.e. learns something), their well-being is increased (i.e. they feel a self-purpose, they feel good).
Performance -App. Goals / Dedication	<ul style="list-style-type: none"> - to succeed and get my degree 	<p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - getting degree appears to be a demonstration of competence or success (i.e. a performance goal)
Performance -App. Goals / Achievemen t	<ul style="list-style-type: none"> - expectations of what I should get like for grades wise, - I would say I have a higher grade expectation and feel I should do better in that class [by "do better in the class" I mean] Better grades, yea 	<p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - uses grades (academic achievement) to define "doing better"; also uses grades as a demonstration of competence (performance goal)
Performance -Approach Goals / Well-being	<ul style="list-style-type: none"> - I set goals to do well and when I do well I feel satisfied and that definitely is better than just not doing my goals and doing bad at school and not succeeding - doing something that you set out to do definitely makes you feel like you accomplished something, makes you feel better about yourself - I just, I feel that... the goals I set and completed definitely correlated - or uh... makes me feel better - makes it easier I guess to obtain that goal... make sure I just - I feel good about it - I think [going to class] makes me feel better then that helps me to obtain my goals and do better in school, so that helps me - my well-being better too - I guess it helps me complete my goals better... just the satisfaction I guess of.. not being lazy and going to class 	<p>RECIPROCAL RELATIONSHIP</p> <p>Performance-approach goals --> Wellbeing (positive relationship)</p> <ul style="list-style-type: none"> - setting and obtaining performance goals ("to do well") causes increased well-being ("I feel satisfied", "makes you feel like you accomplished something, makes you feel better about yourself") <p>Wellbeing -> Performance-approach goals (positive relationship)</p> <ul style="list-style-type: none"> - positive well-being (feeling good about it, feeling better, satisfaction) helps one to obtain their performance goals: "makes it easier to obtain that goal", "helps me to obtain my goals"
Relationships Between Achievement Goal Theory and Self-Determination Theory Constructs		

Mastery-Approach Goals / Intrinsic Motivation	<ul style="list-style-type: none"> - because I find them interesting ... I just more want to retain this information and use it - I'm more engaged probably in those courses because I like them more and I probably just spend more time like studying and... I guess reading the textbook and stuff... trying to understand - if I feel ... interested in [the class], I would ... feel I should do better in that class than if I was to take a class that I wasn't confident in and I wasn't really interested in or maybe wasn't kind of my best strong suit ... [by "do better in the class" I mean] better grades ... and to be able to... know the... the material and be able to use it in real life situations - because I enjoy it, it makes me more interested in the subject and makes it easier I guess to obtain that goal 	<p>UNIDIRECTIONAL RELATIONSHIP</p> <p>Intrinsic Motivation --> Mastery-approach Goals (positive relationship)</p> <ul style="list-style-type: none"> - intrinsic motivation is related to desire to set mastery goals: "because I like them more ... I probably just spend more time like studying and... trying to understand"; "because I find them interesting ... I just more want to retain this information and use it" as well as increased obtainment of mastery goals: "because I enjoy it, it makes me more interested in the subject and makes it easier ... to obtain that goal [of learning the material]"
Mastery-Approach Goals / Autonomous Motivation	<ul style="list-style-type: none"> - to understand the courses better and... to learn more and gain value from going to school - I just think that if you don't, like attend class or ... study more... it's going to be hard to attain all of the information and be able to remember and use it - it makes me get a self purpose, like, I've actually learned something and I'm actually using this education for a good reason - the goals that I set would definitely be important... yea, for sure... yea - if you know the subject ... you're going to be a lot more confident taking the test and going to class than if you never studied or read the book before, yea... you'll be more obliged to participate in class and do your homework 	<p>UNIDIRECTIONAL RELATIONSHIP Mastery-approach Goals --> Autonomous Motivation (positive relationship)</p> <ul style="list-style-type: none"> - desire to obtain mastery goals (attain and remember all of the information) is related to increased autonomous motivation to engage in academic activities (attend class, study) - obtainment of mastery goals (knowing the subject) is related to increased autonomous motivation to go to class and "participate in class and do your homework" <p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - no clear differentiation between mastery goals and autonomous motivation for this student as she appears autonomously motivated to obtain mastery goals: "it makes me get a self purpose ... I've actually learned something"; "the goals that I set would definitely be important"; "to learn more and gain value from going to school"
Mastery-App. Goals / Contr. Mot.	<ul style="list-style-type: none"> - even if the classes were on the university time schedule, I think my goals would still be the same. 	<p>NO RELATIONSHIP</p> <ul style="list-style-type: none"> - claims to set the same goals (i.e. mastery goals) whether or not she is forced to take the course (i.e. the course is a program requirement)
Mastery-Approach Goals / Autonomy Sat.	<ul style="list-style-type: none"> - I don't think [my freedom to make my own choices at university is related to the goals I form] I think, they're just set there because that's what I want to do, it doesn't really... I guess that is a free choice but... I just think I've just always wanted to do that no matter if I had a free choice or not, so I don't think that really effects that - Yea, even if the classes were on the university time schedule [and thus I was forced to take them], I think my goals would still be the same. 	<p>NO RELATIONSHIP</p> <ul style="list-style-type: none"> - claims to set the same mastery goals whether or not she feels free to take a course <p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - high autonomous motivation and high mastery goals but no evidence that these variables influence each other
Mastery-Approach Goals / Competence Satisfaction	<ul style="list-style-type: none"> - I just think that if you don't, like attend class or ... study more, or unless you're like super smart it's going to be hard to attain all of the information - if you know the subject ... you're going to be a lot more confident taking the test and going to class than if you never studied or read the book before - because I feel competent in classes, that would relate to my goals I guess... I guess just trying to succeed in doing my best - I would say I ... feel I should do better in that class than if I was to take a class that I wasn't confident in ... or maybe wasn't kind of my best strong suit ... [by "do better in the class" I mean] ... to be able to... know ... the material and be able to use it in real life situations 	<p>RECIPROCAL RELATIONSHIP</p> <p>Competence Satisfaction --> Mastery-approach Goals (positive relationship)</p> <ul style="list-style-type: none"> - competence satisfaction (believing you are "super smart", feeling confident in a class) is related to obtainment of mastery goals (attain the information, do one's best, know the material and apply it to real life) - low competence satisfaction ("wasn't my strong suit") is related to not obtaining mastery goals <p>Mastery-approach Goals -> Competence Satisfaction (positive relationship)</p> <ul style="list-style-type: none"> - obtainment of mastery goals (knowing the subject) is related to increased competence satisfaction (confidence when taking the test)

Performance -Approach Goals / Intrinsic Motivation	<ul style="list-style-type: none"> - if enjoy something a lot more, you're going to do better in it - studying the subject you're interested in, it's a lot easier to do more than something you're not interested in - I just want to do well at these courses because I find them interesting - if I'm interested in it, I would say I have a higher grade expectation and feel I should do better in that class than if I was to take a class that ... I wasn't really interested in - because I enjoy it, it makes me more interested in the subject and makes it easier I guess to obtain that goal - the course I enjoy actually... well yea, they make me feel better for sure and... and I'm enjoying what I'm doing and then the goals would help complete that I guess cycle 	UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Performance-approach Goals (positive relationship) - intrinsic motivation is related to obtainment of performance goals: "if enjoy something a lot more, you're going to do better in it"; "because I enjoy it, it makes me more interested in the subject and makes it easier I guess to obtain that goal" as well as to the setting of performance goals: "I just want to do well at these courses because I find them interesting"; "if I'm interested in it, ... I have a higher grade expectation and feel I should do better in that class"
Performance -Approach Goals / Autonomous Motivation	<ul style="list-style-type: none"> - I just think that if you don't, like attend class or ... study more ... it's going to be hard to ... use [the information] in real life situations - a little bit of myself and wanting to do well - to be able to use it in a real world situation, and not just be able to answer a question on a test - so I have more experience than them ... if I ever encounter a situation like that during my job, I'll know what to do better than them and, I guess, hopefully that will give me an advantage for a job in the future. - going to class makes me feel better about myself than just sleeping in and not going to class ... I think it makes me feel better then that helps me to obtain my goals and do better in school - I guess it helps me complete my goals better... not being lazy and going to class 	RECIPROCAL RELATIONSHIP Autonomous Motivation -> Performance-approach Goals (positive relationship) - autonomous motivation to attend classes is related to increased ability to obtain performance goals: "going to class makes ... helps me to obtain my goals and do better in school" MEDIATED by increased well-being Performance-approach Goals -> Autonomous Motivation (positive relationship) - desire to obtain performance goals (use the information in real life situations, do better than others) is related to increased autonomous motivation to attend class and study
Performance -Approach Goals / Controlling Motivation	<ul style="list-style-type: none"> - for my family, since they're paying for some of my school ... I don't want to let them down and not be able to succeed or do poorly in class - [my parents] just want to make me - or, they want to see me do well in life and they want me to - just to see me succeed and so do I - [my parents] are not forcing me to take a business degree, they're just making sure that this is what I like to enjoy and if I do, just to do the best at it 	UNIDIRECTIONAL RELATIONSHIP Controlling Motivation --> Performance-approach Goals (positive relationship) - controlling motivation (guilt due to family paying for education, pressure to not "let them down") is related to the desire to set performance goals (to succeed and do well in class) CONCEPTUAL SIMILARITY - feels pressured to obtain performance goals: "I don't want to let them down and not be able to succeed", "they want to see me do well", "to do the best at it"
Performance -App. Goals / Autonomy Sat.	<ul style="list-style-type: none"> - Yea, I guess, just because I want to do well so I can say that would be a free choice to study more and go to class and stuff because I can always choose not to... to choose that too 	CONTEXTUAL RELATIONSHIP - feels free to set any type of goals and chooses to set performance goals; acknowledges freedom to set other types of goals as well - performance goals influence the choices made, but do not influence the overall feeling of having a free choice
Performance -Approach Goals / Competence Satisfaction	<ul style="list-style-type: none"> - I just think that if you don't, like attend class or do - like study more, or unless you're like super smart it's going to be hard ... be able to remember and use [the information] in real life situations - Yea, [if I didn't feel competent] I might not have as high of expectations of what I should get like for grades wise, or if I haven't studied I guess as much - I would say how I feel about the class ... I would say I have a higher grade expectation and feel I should do better in that class than if I was to take a class that I wasn't confident in ... or maybe wasn't kind of my best strong suit. - yea, doing something that you set out to do definitely makes you feel like you accomplished something 	RECIPROCAL RELATIONSHIP Competence Satisfaction -> Performance-approach Goals (positive relationship) - competence satisfaction (believing you are "super smart") is related to obtainment of performance goals (use the information in "real life situation") - low competence satisfaction (a class I'm not confident in or "isn't my strong suit") is related to setting low performance goals (lower grade expectations) Performance-approach Goals -> Competence Satisfaction (positive relationship) - obtaining performance goals causes increased competence satisfaction: "doing something that you set out to do definitely makes you feel like you accomplished something"

E-12. VARIABLE MATRIX FOR INTERVIEWEE C4		
Explanations of Constructs as Experienced by Interviewee C4		
Construct	Explanation	Comments
Intrinsic Motivation	<ul style="list-style-type: none"> - love what you do. Like they say, you know, definitely I wouldn't be in it if I didn't enjoy learning about it, didn't find it fascinating. - it's easier to go to class when you like a class a lot more. - you just get a lot more enjoyment out of it. It's pleasurable to go to class and to find and use things that you didn't know about before - I just found [Kinesiology] so interesting because in extracurricular events, a lot of the stuff I do is sports based, you know, athletic. And just to be able to correlate between the two, that this is what's happening when I throw the ball... Just to be able to apply that secondary knowledge to what I've already been able to do is just makes it more in depth. Makes it more interesting - I really enjoyed [my kinesiology classes] ... I had a greater sense of enjoyment doing them and I felt I understood them even better than my other classes 	<p>KEYWORDS for intrinsic motivation present:</p> <ul style="list-style-type: none"> - love - enjoy - find it fascinating - like - pleasurable - interesting <p>FOSTERED by:</p> <ul style="list-style-type: none"> - content that relates to pre-existing interests or activities - new content that one did not know before <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - tends to speak in general terms i.e. "you" or "they" rather than about himself specifically <p>CONCLUDED "LEVEL": HIGH</p>
Autonomous Motivation	<ul style="list-style-type: none"> - I mean you really got to think about your future... you're not going to learn anything unless you go to class. You need to go to class to pass the course to get the degree, to get the job - think where the pressures coming from could be self- pressure, just to know that you have to go and get the job... you have to learn stuff - I think the majority of it is yourself, knowing that you have to go - Well [academic activities are] important, like I said you need to go there and learn stuff to be able to do the job that you're trying to get into - I feel it's important that if you know the information, if you know everything that you'll get a good mark - there's always that self drive to try and do well - self accomplishment, right? - I wasn't as motivated to get [into medicine], maybe it wasn't as strong a desire as I thought it was and so I decided I didn't want to go into medicine, I changed into a sciences degree - I know school works important - if you want to achieve these goals, you have to be self motivated. Nobody's going to push you or help you to make it there...you have to be self motivated - there's always that self drive to try and do well - self accomplishment, right? - I didn't want to do that much work it just wasn't that important to me to 	<p>KEYWORDS for autonomous motivation present:</p> <ul style="list-style-type: none"> - got to think about your future - self-pressure - important - self drive - self-motivated <p>KEYWORDS for autonomous motivation not present:</p> <ul style="list-style-type: none"> - wasn't as strong a desire <p>FOSTERED by:</p> <ul style="list-style-type: none"> - desire to learn, get a degree, and get a job - high self regulation - believe that going to class and learning will lead to a good mark <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - tends to speak in general terms i.e. "you" or "they" rather than about himself specifically - unclear whether high self-regulation represents autonomous motivation or controlling motivation as he consistently uses terms "have to" and "need to" - previously low autonomous motivation when in a different program (medicine); discipline specific <p>CONCLUDED "LEVEL": HIGH</p>
Controlling Motivation	<ul style="list-style-type: none"> - for one you are taught that you are supposed to, you're taught that it's a good idea to go do [academic activities] - I guess there's some social pressure, some peer pressure to go, you know your friends are going all the time so you should probably go to class and be there with them - there's definitely an element of social pressure - my parents were good - they always - they didn't force me into anything, they always said let yourself choose but you have a lot of social stigma that says - like you're friends you know, and right out of high school a lot of people they say well you're smart, you should go be a doctor - I was raised when you start something you should really try and see it through 	<p>KEYWORDS for controlling motivation present:</p> <ul style="list-style-type: none"> - you are taught that you are suppose to - social/peer pressure - should probably go - social stigma <p>KEYWORDS for controlling motivation not present:</p> <ul style="list-style-type: none"> - parents didn't force me <p>FOSTERED by:</p> <ul style="list-style-type: none"> - being raised to value education and completion of started activities - knowledge that friends are attending courses - social pressure as a result of having done well in high school <p>HINDERED by:</p> <ul style="list-style-type: none"> - perception that parents will allow one to choose whether or not to attend university <p>CONCLUDED "LEVEL": MODERATE</p>

Mastery- Approach Goals	<ul style="list-style-type: none"> - you have to learn stuff - you need to go there and learn stuff to be able to do the job that you're trying to get into - you want to try to do the best that you can - a personal growth and gain kind of thing. - to know the class, you need to know it inside and out... I want to know how something works and it may not be covered in the class but that's more of a personal, Uh I really like to know how things work. I like knowing the information. I like having a general world knowledge of that kind of stuff.... It's about learning the material - I'm more about learning - like, learning the information. - It's more about personal knowledge - personal growth - kind of - than it is about school work... I know school works important... I'd much rather know the information for myself than for any test - for me it's more about knowledge than it is about trying to pass the class 	<p>KEYWORDS for setting mastery goals:</p> <ul style="list-style-type: none"> - learn stuff - able to do the job - best you can - know the class - know how things work - it's about learning the material / information - knowledge - personal growth <p>FOSTERED by:</p> <ul style="list-style-type: none"> - desire to perform well at job in the future - desire to do the best that one can - personal interest in material <p>CONCLUDED "LEVEL": HIGH</p>
Performance -Approach Goals	<ul style="list-style-type: none"> - Pass the class - used to be to try to get a high mark - Try to get a good mark. Try to get as good of a mark that you can. Definitely try to keep up with your peers - Try to get as good o mark as you can I think that's all - you want to try to do the best that you can - I try to do better than my peers. Not in an "in your face" kinda way - you need to get good marks - to get a good mark - [grades are] not really my focus to be honest with you, I think that - the marks are important but, they're not the end all be all - you say well I want a degree, I want to pass my classes with x average. And you want to try to do as well as your peers or better than them - [when you don't achieve performance goals,] you still want to do well but it's doing well within different confines it's no longer in high school where you want to try to push 90's, in university it's - you're trying to just get you know, a better mark, maybe an 80 or 85 	<p>KEYWORDS for setting performance goals:</p> <ul style="list-style-type: none"> - pass the class - get a high/good mark - keep up with your peers - do the best that you can - do better than my peers <p>KEYWORDS for not setting performance goals:</p> <ul style="list-style-type: none"> - want to try push 90's .. an 80 or 85 <p>FOSTERED by:</p> <ul style="list-style-type: none"> - perceiving marks as important <p>HINDERED by:</p> <ul style="list-style-type: none"> - perception that you may not obtain the specific goals <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - unclear whether 'get as good of a mark as you can' is entirely performance or mastery - aware of social undesirability of performance goals: "not in an in your face sort of way" <p>CONCLUDED "LEVEL": MODERATE</p>
Autonomy Satisfaction	<ul style="list-style-type: none"> - you're one in millions - you know, and it's much more individualistic [than high school]. Nobody's pushing you, nobody's forcing you to do anything and it's all self motivation... you really have to - need to learn how to self motivate yourself, how to manage yourself individually, I mean you can't really rely on anybody. - you have to make sure you get studying and put in a certain amount of hours - you have to... if you want to go into a study group, even just with your peers and socially and stuff like that, you have to make sure you get into that it's all self initiated - I decided I didn't want to go into medicine, I changed into a sciences degree - I did yea, [feel free to change my degree,] I didn't feel bound by anybody - you feel individually, like I said you're one among many but you can really do whatever you want it's a whole wide open place - I didn't feel bound to have to do a degree in medicine... you can use [your intelligence] in other directions and I think that can be just as beneficial so yea, I felt free to do that. 	<p>KEYWORDS for high autonomy satisfaction:</p> <ul style="list-style-type: none"> - more individualistic - nobody's pushing/forcing you - self-motivation - self-initiated - didn't feel bound - can do whatever you want - I felt free - I decided <p>FOSTERED by:</p> <ul style="list-style-type: none"> - perception that one is merely one student among many <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - defines autonomy satisfaction in comparison to high school - discusses ability to make own decisions as somewhat of a burden: "you have to make sure you get into that" <p>CONCLUDED "LEVEL": HIGH</p>

Competence Satisfaction	<ul style="list-style-type: none">- I can use my gifts or whatever you want to call them - I don't want to sound cocky- I think that I have the tools needed to do well in university... I'm a relatively smart guy. I can put in the work if I'm motivated enough... I've always done well in high school... learning was something I managed to do pretty easily - so, I felt confident that I'd be able to do that at the next level- if you know innately that you're capable of something great- I know I can do well- I know I can do well and I know that I can understand the course well- I feel confident that I have the abilities to [complete my degree]- it's not nearly as easy as high school	<p>KEYWORDS for high competence satisfaction:</p> <ul style="list-style-type: none">- my gifts [in relation to high academic ability]- I have the tools needed to do well- relatively smart- always done well- confident- innately capable- I know I can do well <p>KEYWORDS for low competence satisfaction:</p> <ul style="list-style-type: none">- not as easy as high school <p>FOSTERED by:</p> <ul style="list-style-type: none">- belief that one possesses "innate" ability or intelligence as a "gift"- past academic success <p>HINDERED by:</p> <ul style="list-style-type: none">- difficulty of content <p>OTHER COMMENTS:</p> <ul style="list-style-type: none">- aware that discussing high perceived competence is against social normals: "don't want to sound cocky"- context dependent (more competent in high school than university)- varies timeframe in responses (i.e. competence satisfaction when started university compared to now) <p>CONCLUDED "LEVEL": HIGH</p>
Academic Dedication	<ul style="list-style-type: none">- just lately I've been struggling with that [intention to complete my degree] and if I could do that test over again, I might change my answer [from intending to complete my degree to not intending to complete my degree]- lately, yea, lately I've been thinking about changing majors but I've never thought about dropping out of university because it's along those lines, you know - if you start something I want to finish it - you know, I want to get to the end- I've never thought about dropping out of university- I've never thought about dropping out of school.	<p>KEYWORDS for high dedication:</p> <ul style="list-style-type: none">- never thought about dropping out <p>KEYWORDS for low dedication:</p> <ul style="list-style-type: none">- struggling with [the decision]- changing majors <p>FOSTERED by:</p> <ul style="list-style-type: none">- desire to finish something one has started <p>OTHER COMMENTS:</p> <ul style="list-style-type: none">- dedication towards a degree vs. dedication towards one's current degree distinction <p>CONCLUDED "LEVEL": MODERATE</p>
Academic Achievement	<ul style="list-style-type: none">- [in high school I] did pretty good - pretty good marks and valedictorian of my class- I haven't had great grades this year	<p>KEYWORDS for high achievement:</p> <ul style="list-style-type: none">- valedictorian- pretty good marks <p>KEYWORDS for low achievement:</p> <ul style="list-style-type: none">- haven't had great grades <p>OTHER COMMENTS:</p> <ul style="list-style-type: none">- context dependent (i.e. high in high school, relatively lower in university) <p>CONCLUDED "LEVEL": LOW (currently)</p>
Well-being	<ul style="list-style-type: none">- University have been tough, a lot of ups and downs and changes, it's really a turbulent time in your life- It's discouraging when... you find that <u>something that you once really loved to do isn't as exciting - you're not as motivated anymore...</u> you worry about that... and that can be upsetting.- I was happy that I found a new area of interest	<p>KEYWORDS for low wellbeing:</p> <ul style="list-style-type: none">- tough, a lot of ups and downs, turbulent time, discouraging, worry <p>KEYWORDS for low wellbeing:</p> <ul style="list-style-type: none">- happy <p>CONCLUDED "LEVEL": MODERATE</p>
Relationships Between Constructs as Experienced by Interviewee C4		
NO DATA for the following relationships:		
Autonomous Motivation / Academic Achievement	Performance-Approach Goals / Academic Dedication	
Controlling Motivation / Academic Achievement	Controlling Motivation / Competence Satisfaction	
Controlling Motivation / Well-being	Intrinsic Motivation / Autonomy Satisfaction	
Autonomy Satisfaction/ Academic Dedication	Autonomy Satisfaction / Academic Achievement	
Mastery-Approach Goals /Controlling Motivation	Performance-Approach Goals /Controlling Motivation	
Relationships Between Outcome Variables and Motivation Types		

Intrinsic Motivation / Academic Dedication	<ul style="list-style-type: none"> - definitely I wouldn't be in it if I didn't enjoy learning about it, didn't find it fascinating. - I really enjoyed [my kinesiology classes] and I found I was much more motivated to go to those classes, to do the school work I had a greater sense of enjoyment doing them ... just recently I've been considering going off in that other direction of kinesiology [and not sciences]... but I've never thought about dropping out of school - Exactly [I'm more dedicated towards things that you personally enjoy and find interesting] 	UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Dedication (positive relationship) - enjoyment of specific classes causes one to continue to enroll in those classes (i.e. to change major to subject that one enjoys more) - enjoyment and interest increases dedication
Autonomous Motivation / Academic Dedication	<ul style="list-style-type: none"> - I wasn't as motivated to get [into medicine], maybe it wasn't as strong a desire as I thought it was and so I decided I didn't want to go into medicine, I changed into a sciences degree - I was raised when you start something you should really try and see it through - and so, I really want to do that - but...lately I've been thinking about changing majors but I've never thought about dropping out of university because... if you start something I want to finish it - you know, I want to get to the end and that's that inner drive 	UNIDIRECTIONAL RELATIONSHIP Autonomous Motivation --> Dedication (positive relationship) - belief that it is important to obtain a degree and finish what one started increases dedication toward university BUT NOT dedication toward specific course/program
Controlling Motivation / Academic Dedication	<ul style="list-style-type: none"> - I was raised when you start something you should really try and see it through - and so, I really want to do that - but... lately I've been thinking about changing majors but I've never thought about dropping out of university because... if you start something I want to finish it 	UNIDIRECTIONAL RELATIONSHIP Controlling Motivation --> Dedication (positive relationship) - pressure to "see it through" related to increased dedication to complete degree BUT NOT increased dedication toward specific program/course MEDIATED by Autonomous Motivation: - pressure from parents or influential figures appears to be internalized and thus may better reflect autonomous motivation than controlling - internalizing controlling motivation appears to have protective benefits associated with autonomous motivation
Intrinsic Mot / Achievement	If you enjoy it, then it's not just about the marks...	CONTEXTUAL SIMILARITY - when one enjoys class, less weight attributed to marks OTHER COMMENTS: - weight attributed to marks vs. actual academic achievement earned distinction
Intrinsic Motivation / Well-being	<ul style="list-style-type: none"> - It's discouraging when... you find that something that you once really loved to do isn't as exciting - you're not as motivated anymore... you worry about that... and that can be upsetting. - I was happy that I found a new area of interest [Kinesiology] 	UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Wellbeing (positive relationship) - when intrinsic motivation decreases (i.e. something one previously loves loses its excitement), wellbeing is decreased (one is discouraged) - when one finds a new area in which they are intrinsically motivated, their wellbeing increases.
Autonomous Motivation / Well-being	<ul style="list-style-type: none"> - So I think trying to find the one that I'm best motivated to do, the one that I'm most enthusiastic about doing is tough 	UNIDIRECTIONAL RELATIONSHIP Autonomous Motivation --> Wellbeing (negative relationship) - high autonomous motivation to enroll in the "best" program for one leads to low wellbeing when trying to make this decision / find this program.
Relationships Between Outcome Variables and Needs Satisfaction		
Comp.Sat. / Dedication	<ul style="list-style-type: none"> - I feel confident that I have the abilities to [complete my degree] 	CONTEXTUAL RELATIONSHIP - describes competence in terms of ability to complete degree
Competence Satisfaction / Academic Achievement	<ul style="list-style-type: none"> - No actually [I don't think competence and grades are related]... I haven't had great grades this year to be honest with you... I know I can do well and I know that I can understand the course well - I just, well I think I understood the question, I think I understood the material, whether or not it conforms to how they ask me a question or how or kind of - what way they wanted me to present it, that doesn't necessarily mean that I don't know the answer 	NO RELATIONSHIP - does not perceive a relationship as he feels he has high competence but earns low grades - does not feel low grades reflect low competence, but rather low grades reflect how the question is asked possibly MEDIATED by level of achievement: - potentially when one earns low grades, they feel this is unrelated to their competence but when one earns high grades they attribute it to their competence (fundamental attribution error)

Autonomy Sat. / Well-being	it's nice because I didn't feel bound to have to do a degree in medicine	UNIDIRECTIONAL RELATIONSHIP Autonomy Satisfaction --> Wellbeing (positive relationship) - autonomy (not feeling bound) is related to improved wellbeing "it is nice"
Competence Satisfaction/ Well-being	I know I can do well and I know that I can understand the course well... so, I don't get super discouraged if I don't get a great mark on a test or something like that - I just, well I think I understood the question, I think I understood the material, whether or not it conforms to how they ask me a question... that doesn't necessarily mean that I don't know the answer, it's just how I present it... if I feel competent, it's not going to get discouraged if I don't get that good grade or anything, I think that if I understand - like say If I understand the material I'm not worried about what my grade is.	UNIDIRECTIONAL RELATIONSHIP Competence Satisfaction -> Wellbeing (positive relationship) - if high competence satisfaction in a course (i.e. feels he understands the material), increased well-being (i.e. doesn't worry about grade, not discouraged) OTHER COMMENTS: - competence satisfaction mediates the academic achievement -> wellbeing relationship such that high competence satisfaction protects against hindered wellbeing resulting from low grades
Relationships Between Motivation Types and Needs Satisfaction		
Intrinsic Motivation / Autonomous Motivation	<ul style="list-style-type: none"> - I wasn't as motivated to get [into medicine], maybe it wasn't as strong a desire as I thought it was and so I decided I didn't want to go into medicine, I changed into a sciences degree and there's a lot of people out there who are the exact opposite, you know someone who wants to get into the veterinarian college and they - you know they love animals and they're just dedicated, they're going to do whatever it takes and I think that for myself I found that I had limitations in my inner drive - certain times when you're motivation is lacking for different classes or different courses... you start to re-evaluate... how interested you are in those classes and I think that - you have to decide if it's just a momentary thing or if maybe you've changed and you don't have that motivation anymore... you have to decide what you have motivation for... the best concrete example I can give is I started off in medicine and I decided I want to get a sciences degree and just recently I took some kinesiology classes and I really enjoyed them and I found I was much more motivated to go to those classes, to do the school work I had a greater sense of enjoyment doing them ... recently I've been considering going off in that other direction of kinesiology and - So I think trying to find the one that I'm best motivated to do, the one that I'm most enthusiastic about doing is tough 	RECIPROCAL RELATIONSHIP Intrinsic Motivation --> Autonomous Motivation (positive relationship) - believes intrinsic motivation (i.e. love, fascination with program) increases autonomous motivation to attend class and complete degree in that area - for him, low intrinsic motivation toward medicine led to low autonomous motivation to pursue that degree - believes others (i.e. veterinarian students) who have high intrinsic motivation are more autonomously motivated Autonomous Motivation -> Intrinsic Motivation (positive relationship) - feeling un-autonomously motivated causes one to "re-evaluate" how interested they are in the course content
Intrinsic Mot./ Controlling Mot.	- I think when you have different people with you, you get more of a taste of where they're coming from you empathize, you see what they find interesting about different subjects and some of that can appeal to you and so maybe you find that interesting and you decide to go down a different path than the one that you would do if you were by yourself but I think that that self drive is still there	CONTEXTUAL RELATIONSHIP - in some cases, engaging in academic activities because one's friends do (controlling motivation; peer pressure) leads to intrinsic motivation in an area one may never have pursued otherwise; controlling motivation does not necessarily cause intrinsic motivation, but it may ultimately lead to intrinsic motivation in certain contexts
Autonomous Mot. / Controlling Mot.	I was raised when you start something you should really try and see it through - and so, I really want to do that	UNIDIRECTIONAL RELATIONSHIP Controlling Motivation --> Autonomous Motivation (positive relationship) - pressure from parents to complete something one has started has led to internalization of this belief which contributes to his autonomous motivation to complete degree
Intrinsic Mot. / Competence Sat.	- I really enjoyed [my kinesiology classes]... I had a greater sense of enjoyment doing them and I felt I understood them even better than my other classes	UNIDIRECTIONAL RELATIONSHIP Intrinsic Motivation --> Competence Satisfaction (positive relationship) - high intrinsic motivation (enjoyment of class) lead to high competence satisfaction (understanding of content) - competence satisfaction in intrinsically motivated courses is higher than in non-intrinsically motivated courses

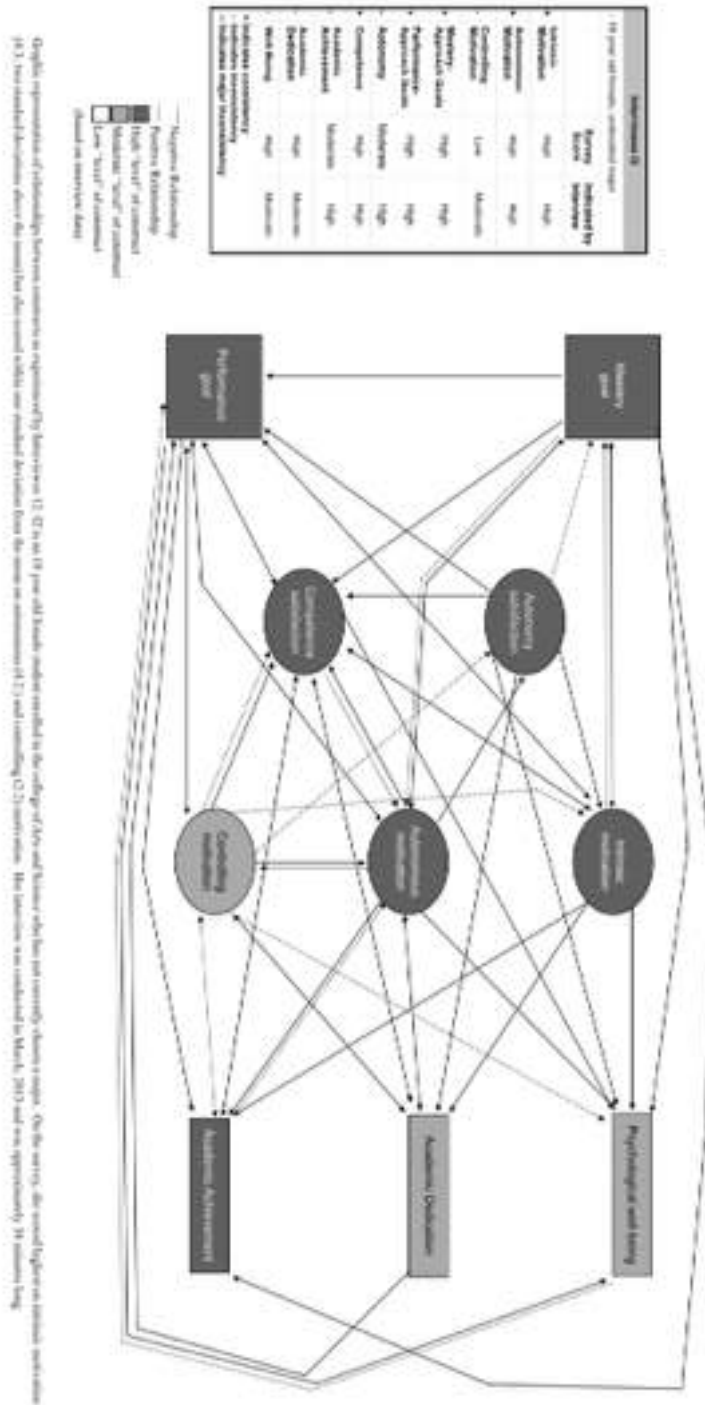
Autonomous Motivation / Autonomy Satisfaction	<ul style="list-style-type: none"> - you have to be self motivated. Nobody's going to push you or help you to make it there. If you want to - yea, you have to be self motivated and that comes from being an individual rather than opposed to high school where it's more of a group culture kind of thing - you can use it in other directions and I think that can be just as beneficial so yea, I felt free to do that - I wasn't as motivated to get [into medicine], maybe it wasn't as strong a desire as I thought it was and so I decided I didn't want to go into medicine, I changed into a sciences degree - I didn't feel bound to have to do a degree in medicine - you know, I can use my gifts or whatever you want to call them - I don't want to sound cocky, but - you can use it in other directions and I think that can be just as beneficial so yea, I felt free to do that. 	<p>UNIDIRECTIONAL RELATIONSHIP Autonomy Satisfaction -> Autonomous Motivation (positive relationship) - feeling autonomous to choose his degree may increase his autonomous motivation within that field (i.e. feeling free to enroll in Kinesiology instead of sciences may increase autonomous motivation toward Kinesiology; HOWEVER, no evidence that freedom to enroll in a science degree instead of medicine increased his autonomous motivation toward sciences)</p> <p>OTHER COMMENTS: - speaks a bit in cliches and focuses on a theoretical person ("you") rather than on his own personal motivation</p>
Autonomous Motivation / Competence Satisfaction	<ul style="list-style-type: none"> - Well [academic activities are] important, like I said you need to go there and learn stuff to be able to do the job that you're trying to get into, you have to be competent. - if you know innately that you're capable of something great then you're going to try to achieve that greatness - whether that's marks or whatever - but, for sure, if I know that I'm capable of getting good marks, so I want to try to get good marks - I know I can do well so I want to do well. - maybe if I was not as smart of a guy or whatever - but, I'd still want to do the best that I could. - even if I came in and wasn't as confident in how well I could do, I would still try to do well. - maybe if I was not as smart of a guy or whatever - but, I'd still want to do the best that I could. So I don't know if those two are really [related], I think that the desire to do your best is something that's just born in you whether or not you have a have a certain level of intellect, you have a certain level of capability or not. So, I think that even if I came in and wasn't as confident in how well I could do, I would still try to do well. 	<p>RECIPROCAL RELATIONSHIP Autonomous Motivation --> Competence Satisfaction (positive relationship) - belief that academic activities are important leads to increased need for competence within the activity</p> <p>Competence Satisfaction -> Autonomous Motivation (positive relationship) - high competence satisfaction (feeling capable to get good marks) increases desire to further satisfy competence (more autonomously motivated toward activity)</p> <p>OTHER COMMENTS: - speaks a bit in cliches and hypothetical situations ("you") rather than on his own personal motivation - i.e. states that he feels no relationship exists because one should have high autonomous motivation regardless of competence; however, discusses this mostly in hypothetical terms and contradicts previous statements regarding his own competence satisfaction and autonomous motivation</p>
Controlling Motivation / Autonomy Satisfaction	<ul style="list-style-type: none"> - <u>my parents were good... they didn't force me into anything, they always said let yourself choose</u> but you have a lot of social stigma that says - like you're friends you know, and right out of high school a lot of people they say well you're smart, you should go be a doctor - and it was nice because once you get here and its - you feel individually... you can really do whatever you want it's a whole wide open place - [In high school] if you miss a single day of class or a single class, everybody's all up on you and stuff like, right? Where as here, you're one in millions - you know, and it's much more individualistic. Nobody's pushing you, nobody's forcing you to do anything and it's all self motivation. 	<p>UNIDIRECTIONAL RELATIONSHIP Controlling Motivation --> Autonomy Satisfaction (negative relationship) - existence of controlling motivation (social pressure) decreases autonomy satisfaction and non-existence of controlling motivation increases autonomy satisfaction to choose one's area of interest</p> <p>CONCEPTUAL SIMILARITY - controlling motivation from teachers etc. in high school conceptually similar to lack of choice regarding whether to attend classes; lack of 'controlling figures' in university akin to increased autonomy satisfaction</p>
Autonomy Sat. / Comp. Sat.	I didn't feel bound to have to do a degree in medicine - you know, I can use my gifts or whatever you want to call them - I don't want to sound cocky, but - you can use it in other directions and i think that can be just as beneficial so yea, I felt free to do that.	<p>UNIDIRECTIONAL RELATIONSHIP Competence Satisfaction --> Autonomy Satisfaction (positive relationship) - high general competence satisfaction increases perceived autonomy to pursue different career paths</p>
Relationships Between Achievement Goal Theory Constructs and Outcomes		

Mastery- Approach Goals / Performance -Approach Goals	<ul style="list-style-type: none"> - I try to do better than my peers. Not in an “in your face” kinda way but just as a personal growth and gain kind of thing. - to get a good mark you need to know the class, you need to know it inside and out. - if you enjoy it, then it’s not just about the marks. It’s not just about the school. It’s about learning the material so you want to try and do it as much as you can. - [grades are] not really my focus to be honest with you, I think that - the marks are important but, they’re not the end all be all - I’m more about learning - like, learning the information. If I feel that if I know the information, whether or not I get a good mark on the test, it’s not really as important to me. - It’s more about personal knowledge - personal growth... than it is about school work - I mean, but, I know school works important and I know you need to get good marks, but if you had to put the two side by side, I’d much rather know the information for myself than for any test. - for me it’s more about knowledge than it is about trying to pass the class 	<p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - goal to do better than peers in a “personal growth and gain kind of thing”; unclear what goal orientation this reflects; likely performance goals but acknowledgement of socially desirable response <p>CONTEXTUAL RELATIONSHIP</p> <ul style="list-style-type: none"> - defines both goals by juxtaposing them with the other - acknowledges importance and co-existence of both goals; values mastery goals more only if forced to choose <p>MEDIATED by Intrinsic Motivation:</p> <ul style="list-style-type: none"> - if intrinsically motivated, more orientated toward mastery goals than performance goals <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - believes that obtaining mastery goals will ultimately lead to obtainment of performance goals; however, unclear whether desire to obtain performance goal causes him to set mastery goal (i.e. learn material to get a good grade) OR whether desire to obtain mastery goal causes him to obtain performance goal (i.e. desires to learn material and gets good grades as a result) - speaks a bit in cliches and hypothetical situations
Mastery- Goals / Dedication	<ul style="list-style-type: none"> - I felt I understood [my kinesiology classes] even better than my other classes and so just recently I’ve been considering going off in that other direction of kinesiology [and not sciences]... but I’ve never thought about dropping out of school 	<p>UNIDIRECTIONAL RELATIONSHIP Mastery-approach Goals --> Dedication (positive relationship)</p> <ul style="list-style-type: none"> - easily obtaining mastery goals (e.g. understanding course content) leads to increased dedication toward specific program/courses
Mastery- Goals / Achievement	<ul style="list-style-type: none"> - I feel it’s important that if you know the information, if you know everything that you’ll get a good mark 	<p>UNIDIRECTIONAL RELATIONSHIP Mastery-approach Goals --> Achievement (positive relationship)</p> <ul style="list-style-type: none"> - believes if one obtains mastery goals (understand the information) they should also obtain high achievement (get a good mark) <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - states that this relationship “should” exist suggesting that it may not always exist, perhaps depending on instructor, test, etc.
Mastery- Approach Goals / Well-being	<ul style="list-style-type: none"> - If I understand the material I’m not worried about what my grade is. - it’s discouraging [when you don’t reach your goals]and you start to wonder if you’re in the right place or not 	<p>UNIDIRECTIONAL RELATIONSHIP Mastery-approach Goals --> Wellbeing (positive relationship) (conditional upon obtainment of goal)</p> <ul style="list-style-type: none"> - obtaining mastery goal leads to increased well-being (not worrying) - not obtaining mastery goal leads to decreased well-being (discouragement) <p>OTHER COMMENTS:</p> <ul style="list-style-type: none"> - obtaining master goal protects against negative effects of low achievement on wellbeing
Perf.-Goals / Achie.	<ul style="list-style-type: none"> you still want to do well but it’s doing well within different confines it’s no longer in high school where you want to try to push 90’s, in university it’s - you’re trying to just get you know, a better mark, maybe an 80 or 85 	<p>CONCEPTUAL SIMILARITY</p> <ul style="list-style-type: none"> - defines performance goals in terms of academic achievement (i.e. numerical values)
Performance -Approach Goals / Well-being	<ul style="list-style-type: none"> - it’s discouraging [when you don’t reach your goals]and you start to wonder if you’re in the right place or not - a lot of times you’ll find out people are really smart. It’s discouraging sometimes but, keep up with your peers. - there’s a lot of smart people here, a lot of people smarter than me here and that was kind of a shock because I always did well in school right 	<p>UNIDIRECTIONAL RELATIONSHIP Performance-approach goals --> Wellbeing (negative relationship, conditional)</p> <ul style="list-style-type: none"> - not obtaining performance goals leads to decreased well-being (discouragement and self-doubt) - simply setting performance approach goals leads to decreased well-being (e.g. shock, discouragement) if one perceives other students to be “smarter” than one’s self
Relationships Between Achievement Goal Theory and Self-Determination Theory Constructs		

Mastery- Approach Goals / Intrinsic Motivation	<ul style="list-style-type: none"> - if you enjoy it, then it's not just about the marks... It's about learning the material so you want to try and do it as much as you can. - I just found [Kinesiology] so interesting because... to be able to apply that secondary knowledge to what I've already been able to do is just makes it more in depth. Makes it more interesting - Exactly [learning about interesting things makes academic activities enjoyable]. - I really enjoyed [my kinesiology classes] and I found I was much more motivated to go to those classes, to do the school work I had a greater sense of enjoyment doing them and I felt I understood them even better than my other classes 	RECIPROCAL RELATIONSHIP Intrinsic Motivation --> Mastery-approach Goals (positive relationship) - intrinsic motivation (enjoying the class) causes one to set mastery goals (desire to learn material) and also helps in obtainment of mastery goals Mastery-approach Goals --> Intrinsic Motivation (positive relationship) - desire to truly understand content causes a course to become more interesting - obtaining mastery goals within a course for which one is intrinsically motivated further increases intrinsic motivation
Mastery- Approach Goals / Autonomous Motivation	<ul style="list-style-type: none"> -you're not going to learn anything unless you go to class. - I think where the pressures coming from could be self- pressure... you have to learn stuff - Well [academic activities are] important, like I said you need to go there and learn stuff to be able to do the job that you're trying to get into - if you want to achieve these goals, you have to be self motivated. 	RECIPROCAL RELATIONSHIP Autonomous Motivation --> Mastery-approach Goals (positive relationship) - internalized self-regulation may lead to increased mastery goals (you <i>have</i> to learn) - belief that academic activities are important leads to increased desire to learn information - belief that autonomous motivation is needed to obtain mastery goals Mastery-approach Goals --> Autonomous Motivation (positive relationship) - desire to obtain mastery goal (learn something) related to increased autonomous motivation to attend class OTHER COMMENTS: - speaks in hypothetical terms (i.e. "you")
Mastery- Goals / Autonomy Sat.	<ul style="list-style-type: none"> - if you want to achieve these goals, you have to be self motivated. Nobody's going to push you or help you to make it there... you have to be self motivated and that comes from being an individual rather than opposed to high school where it's more of a group culture kind of thing 	UNIDIRECTIONAL RELATIONSHIP Autonomy Satisfaction --> Mastery-approach Goals (negative relationship) - high autonomy satisfaction potentially makes obtainment of mastery goals more difficult because "nobody is going to push you or help you" OTHER COMMENTS: - speaks in hypothetical terms (i.e. "you")
Mastery- Goals / Competence Sat.	<ul style="list-style-type: none"> if I feel competent, it's not going to get discouraged if I don't get that good grade or anything, I think that if I understand...the material, I'm not worried about what my grade is. 	CONCEPTUAL SIMILARITY - equates feeling competent with having obtained a mastery goal (understanding the material) OTHER COMMENTS: - both competence satisfaction and mastery goals protect against negative effect of low achievement on wellbeing
Performance Goals / Intrinsic Mot.	<ul style="list-style-type: none"> - if you enjoy it, then it's not just about the marks 	NO RELATIONSHIP - high intrinsic motivation leads to less importance attributed to obtainment of performance goals; however, intrinsic motivation not necessarily related to whether or not performance goals are set OTHER COMMENTS: - speaks in hypothetical terms rather than about his specific situation

Performance -Approach Goals / Autonomous Motivation	<ul style="list-style-type: none"> - you say well I want a degree, I want to pass my classes with x average. And you want to try to do as well as your peers or better than them...Does that effect how I go into the classes and prepare for them - for sure... if you're motivated to try to do better than somebody or to try and meet a certain standard you're going to be motivated and you're going to try to prepare better for the class, you'll study or review the material... if you want to get a good mark you'll be motivated and you'll do the work. - I think that - the marks are important - if you want to achieve these goals, you have to be self motivated. - there's always that self drive to try and do well - self accomplishment, right? - I want to do well 	<p>RECIPROCAL RELATIONSHIP Autonomous Motivation --> Performance-approach Goals (positive relationship) - believes that autonomous motivation is needed to obtain performance goals</p> <p>Performance-approach Goals -> Autonomous Motivation (positive relationship) - strong desire to obtain performance goals (get degree, pass class, high average, outperform peers) related to increased autonomous motivation within class (better preparation for class, increased studying, etc.)</p> <p>CONCEPTUAL SIMILARITY - obtainment of performance goals seen as important; perceived importance of class necessary for autonomous motivation akin to importance of grades in the class - self-drive (autonomous motivation) equated with self-accomplishment (obtainment of performance goal) - autonomously motivated to obtain performance goals (both exist but not necessary influenced by each other)</p> <p>OTHER COMMENTS: - speaks in hypothetical / cliché terms</p>
Performance -Goals / Autonomy Sat.	<ul style="list-style-type: none"> - if you want to achieve these goals, you have to be self motivated. Nobody's going to push you or help you to make it there... you have to be self motivated and that comes from being an individual rather than opposed to high school where it's more of a group culture kind of thing 	<p>UNIDIRECTIONAL RELATIONSHIP Autonomy Satisfaction -> Performance-approach Goals (negative relationship) - high autonomy satisfaction potentially makes obtainment of performance goals more difficult because "nobody is going to push you or help you"</p> <p>OTHER COMMENTS: - speaks in hypothetical terms (i.e. "you")</p>
Performance -Approach Goals / Competence Satisfaction	<ul style="list-style-type: none"> - you need to go there and learn stuff to be able to do the job that you're trying to get into, you have to be competent. - maybe if I was not as smart of a guy or whatever - but, I'd still want to do the best that I could.... I think that the desire to do your best is something that's just born in you whether or not you have a have a certain level of intellect, you have a certain level of capability or not. So, I think that even if I came in and wasn't as confident in how well I could do, I would still try to do well. - if you know innately that you're capable of something great then you're going to try to achieve that greatness - whether that's marks or whatever - but, for sure, if I know that I'm capable of getting good marks, so I want to try to get good marks - I know I can do well so I want to do well. 	<p>UNIDIRECTIONAL RELATIONSHIP: Competence Satisfaction --> Performance-approach Goals (positive relationship, facilitating) - if he feels competent to obtain high marks, he will set higher performance goals - but, if he does not feel competent, he would still set performance goals (to demonstrate competence) - believes competence satisfaction needed in order to be able to obtain long-term performance-goal (demonstrate competence on the job)</p> <p>OTHER COMMENTS: - speaks in hypothetical / cliché terms</p>

(Within-case causal map for I1 is within the main text, page 99)



Inventory C1			
17-year-old female, unselected group			
	Strongly Disagree	Disagree Somewhat	Agree Somewhat
1. I am a person who is very sensitive to criticism	Low	Low	Low
2. I am a person who is very sensitive to criticism	Low	Low	Low
3. I am a person who is very sensitive to criticism	Low	Low	Low
4. I am a person who is very sensitive to criticism	Low	Low	Low
5. I am a person who is very sensitive to criticism	Low	Low	Low
6. I am a person who is very sensitive to criticism	Low	Low	Low
7. I am a person who is very sensitive to criticism	Low	Low	Low
8. I am a person who is very sensitive to criticism	Low	Low	Low
9. I am a person who is very sensitive to criticism	Low	Low	Low
10. I am a person who is very sensitive to criticism	Low	Low	Low
11. I am a person who is very sensitive to criticism	Low	Low	Low
12. I am a person who is very sensitive to criticism	Low	Low	Low
13. I am a person who is very sensitive to criticism	Low	Low	Low
14. I am a person who is very sensitive to criticism	Low	Low	Low
15. I am a person who is very sensitive to criticism	Low	Low	Low
16. I am a person who is very sensitive to criticism	Low	Low	Low
17. I am a person who is very sensitive to criticism	Low	Low	Low

Legend:
 ———— Negative Relationship
 ———— Positive Relationship
 ———— High "level" of consensus
 ———— Moderate "level" of consensus
 ———— Low "level" of consensus
 (Based on inventory data)

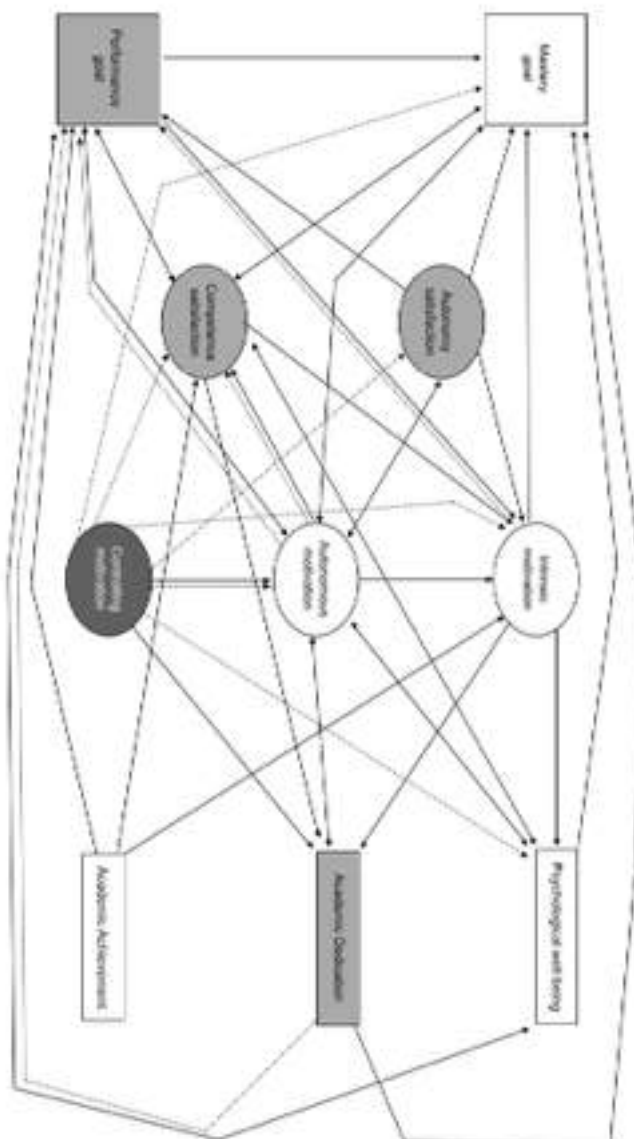


Figure 1. Representation of relationships between constructs as represented by Inventory C1. C1 is a 17-year-old female student enrolled in the college of Arts and Sciences who has not previously shown a major. On the left, the highest motivation to act was for controlling motivation (4.5), low academic achievement (1.5), low psychological well-being (1.5), and low relatedness (1.5). The lowest motivation to act was for controlling motivation (1.5), low academic achievement (1.5), low psychological well-being (1.5), and low relatedness (1.5). The inventory was conducted in February, 2013 and was approximately 24 minutes long.

Appendix G: Summary of Inter-rater Reliability Data																																	
* instances where RA and researcher highlighted the same segment but did not include exactly the same preceding or following information was counted as a single segment made up of the total amount coded by me OR RA and was counted as coded the same (see combined matrices in Appendix F); excerpts from the same segment of text that RAs included as 2 points were combined as 1 point and "... " was added																																	
	INTERVIEW A2 (JE coded)								INTERVIEW A4 (HM coded)								INTERVIEW C4 (ML coded)								INTERVIEW C2 (JE coded)								
	# Jade coded total	# RA coded total	# coded same	# RA coded but Jade never	# Jade coded but RA never	% of mine that he replicated	% of his that I replicated		# Jade coded total	# RA coded total	# coded same	# RA coded but Jade never	# Jade coded but RA never	% of Jade's RA replicated	% of RA's Jade replicated total		# Jade coded total	# RA coded total	# coded same	# RA coded but Jade never	# Jade coded but RA never	% of mine that RA replicated	% of RA's that I replicated		# Jade coded total	# RA coded total	# coded same	# RA coded but Jade never	# Jade coded but RA never	% of mine that RA replicated	% of RA's that I replicated		
TOTAL	324	114	60	54	265	18.5%	52.6%		53	122	28	94	25	52.8%	23.0%		139	58	39	19	100	28.1%	67.2%		92	30	16	14	81	17.4%	53.3%		
Explanations																																	
Intrinsic Motivation	12	1	1	0	11	8.3%	100.0%		4	4	3	1	1	75.0%	75.0%		6	7	4	3	2	66.7%	57.1%		3	0	0	0	0	3	0.0%	-	
Autonomous Motivation	18	7	2	5	16	11.1%	28.6%		6	15	6	9	0	100.0%	40.0%		9	7	4	3	5	44.4%	57.1%		9	0	0	0	0	9	0.0%	-	
Controlling Motivation	14	7	3	4	11	21.4%	42.9%		3	5	3	2	0	100.0%	60.0%		7	6	4	2	3	57.1%	66.7%		5	5	3	2	2	60.0%	60.0%		
Mastery-Approach Goals	18	6	4	2	14	22.2%	66.7%		5	19	5	14	0	100.0%	26.3%		9	6	5	1	4	55.6%	83.3%		3	1	1	0	2	33.3%	100.0%		
Performance-Approach Goals	15	10	5	5	10	33.3%	50.0%		3	4	2	2	1	66.7%	50.0%		11	8	2	6	9	18.2%	25.0%		6	3	3	0	3	50.0%	100.0%		
Autonomy Satisfaction	9	1	1	0	8	11.1%	100.0%		2	6	1	5	1	50.0%	16.7%		7	3	3	0	4	42.9%	100.0%		1	0	0	0	0	1	0.0%	-	
Competence Satisfaction	15	0	0	0	15	0.0%	-		3	16	2	14	1	66.7%	12.5%		6	3	1	2	5	16.7%	33.3%		5	0	0	0	0	5	0.0%	-	
Academic Dedication	5	0	0	0	5	0.0%	-		2	2	1	1	1	50.0%	50.0%		4	4	4	0	0	100.0%	100.0%		4	0	0	0	0	4	0.0%	-	
Academic Achievement	4	0	0	0	4	0.0%	-		1	2	0	2	1	0.0%	0.0%		2	1	1	0	1	50.0%	100.0%		3	0	0	0	0	3	0.0%	-	
Well-being	5	0	0	0	5	0.0%	-		1	9	1	8	0	100.0%	11.1%		1	1	1	0	0	100.0%	100.0%		1	0	0	0	0	1	0.0%	-	
Relationships																																	
Intrinsic Mot. / Autonomous Mot.	5	2	1	1	4	20.0%	50.0%		2	0	0	0	0	2	0.0%	-		2	1	0	1	2	0.0%	0.0%		3	0	0	0	0	3	0.0%	-
Intrinsic Mot. / Controlling Mot.	2	1	0	1	2	0.0%	0.0%		0	0	-	-	-	-	-		1	0	0	0	1	0.0%	-		2	0	0	0	0	2	0.0%	-	
Intrinsic Mot. / Mastery Goals	2	4	1	3	1	50.0%	25.0%		0	0	-	-	-	-	-		4	1	1	0	3	25.0%	100.0%		1	0	0	0	0	1	0.0%	-	
Intrinsic Mot. / Performance Goals	10	4	4	0	6	40.0%	100.0%		1	0	0	0	0	1	0.0%	-		1	0	0	0	1	0.0%	-		1	0	0	0	0	1	0.0%	-
Intrinsic Mot. / Autonomy Sat.	4	0	0	0	4	0.0%	-		0	0	-	-	-	-	-		1	1	1	0	0	-	100.0%		2	0	0	0	0	2	0.0%	-	
Intrinsic Mot. / Competence Sat.	8	0	0	0	8	0.0%	-		0	1	0	1	0	-	0.0%		1	1	0	1	1	0.0%	0.0%		1	0	0	0	0	1	0.0%	-	
Intrinsic Mot. / Dedication	3	0	0	0	3	0.0%	-		2	0	0	0	0	2	0.0%	-		3	0	0	0	3	0.0%	-		1	0	0	0	0	1	0.0%	-
Intrinsic Mot. / Achievement	2	0	0	0	2	0.0%	-		1	0	0	0	0	1	0.0%	-		1	0	0	0	1	0.0%	-		1	0	0	0	0	1	0.0%	-
Intrinsic Mot. / Well-being	1	0	0	0	1	0.0%	-		0	0	-	-	-	-	-		2	1	1	0	1	50.0%	100.0%		1	0	0	0	0	1	0.0%	-	
Autonomous Mot. / Controlling Mot.	8	2	2	0	6	25.0%	100.0%		0	1	0	1	0	-	0.0%		2	1	1	0	1	50.0%	100.0%		1	0	0	0	0	1	0.0%	-	
Autonomous Mot. / Mastery Goals	7	4	3	1	4	42.9%	75.0%		3	3	0	3	0	3	0.0%	0.0%		6	1	1	0	5	16.7%	100.0%		2	0	0	0	0	2	0.0%	-
Autonomous Mot. / P. Goals	15	10	7	3	8	46.7%	70.0%		1	1	0	1	1	0.0%	0.0%		7	1	1	0	6	14.3%	100.0%		1	0	0	0	0	1	0.0%	-	
Autonomous Mot. / Autonomy Sat.	3	3	1	2	3	33.3%	33.3%		1	4	1	3	0	-	25.0%		5	0	0	0	5	0.0%	-		3	0	0	0	0	3	0.0%	-	
Autonomous Mot. / C. Sat.	10	2	1	1	9	10.0%	50.0%		2	5	0	5	2	0.0%	0.0%		8	1	1	0	7	12.5%	100.0%		1	0	0	0	0	1	0.0%	-	
Autonomous Mot. / Dedication	4	2	1	1	3	25.0%	50.0%		3	0	0	0	0	3	0.0%	-		2	0	0	0	2	0.0%	-		2	1	1	0	0	1	50.0%	-
Autonomous Mot. / Achievement	7	0	0	0	7	0.0%	-		0	0	-	-	-	-	-		0	0	-	-	-	-	-		0	0	0	0	0	0	-	-	
Autonomous Mot. / Well-being	1	0	0	0	1	0.0%	-		0	1	0	1	0	-	0.0%		1	0	0	0	1	0.0%	-		2	0	0	0	0	2	0.0%	-	
Controlling Mot. / Mastery Goals	3	0	0	0	3	0.0%	-		0	1	0	1	0	-	0.0%		0	0	-	-	-	-	-		1	1	1	0	0	1	0.0%	100.0%	
Controlling Mot. / P. Goals	6	4	0	4	6	0.0%	0.0%		0	0	-	-	-	-	-		0	0	-	-	-	-	-		2	1	1	0	0	1	50.0%	100.0%	
Controlling Mot. / Autonomy Sat.	6	0	0	0	6	0.0%	-		0	0	-	-	-	-	-		2	0	0	0	2	0.0%	-		0	2	0	2	0	-	0.0%	-	
Controlling Mot. / Competence Sat.	1	0	0	0	1	0.0%	-		0	2	0	2	0	-	0.0%		0	0	-	-	-	-	-		1	1	0	1	1	0	1	0.0%	0.0%
Controlling Mot. / Dedication	4	2	2	0	2	50.0%	100.0%		0	0	-	-	-	-	-		1	0	0	0	1	0.0%	-		2	1	1	0	0	1	50.0%	100.0%	
Controlling Mot. / Achievement	2	0	0	0	2	0.0%	-		0	0	-	-	-	-	-		0	0	-	-	-	-	-		1	0	0	0	0	1	0.0%	-	
Controlling Mot. / Well-being	3	1	1	0	2	33.3%	100.0%		0	0	-	-	-	-	-		0	0	-	-	-	-	-		3	3	2	1	0	1	66.7%	66.7%	
Mastery Goals / P. Goals	16	10	5	5	11	31.3%	50.0%		1	1	0	1	1	0.0%	0.0%		5	0	0	0	5	0.0%	-		1	0	0	0	0	1	0.0%	-	
Mastery Goals / Autonomy Sat.	1	0	0	0	1	0.0%	-		2	2	1	1	1	50.0%	50.0%		1	0	0	0	1	0.0%	-		1	0	0	0	0	1	0.0%	-	
Mastery Goals / Competence Sat.	5	4	1	3	4	20.0%	25.0%		1	12	1	11	0	100.0%	8.3%		1	0	0	0	1	0.0%	-		0	0	0	0	0	0	-	-	
Mastery Goals / Dedication	0	0	0	0	0	-	-		0	1	0	1	0	-	0.0%		1	0	0	0	1	0.0%	-		0	0	0	0	0	0	-	-	
Mastery Goals / Achievement	2	1	0	1	2	0.0%	0.0%		1	1	1	0	0	0	100.0%	100.0%		1	0	0	0	1	0.0%	-		0	0	0	0	0	0	-	-
Mastery Goals / Well-being	7	0	0	0	7	0.0%	-		0	0	-	-	-	-	-		2	0	0	0	2	0.0%	-		0	0	0	0	0	0	-	-	
Performance Goals / Autonomy Sat.	3	5	1	4	2	33.3%	20.0%		0	0	-	-	-	-	-		1	0	0	0	1	0.0%	-		1	2	1	1	0	100.0%	50.0%		
Performance Goals / C. Sat.	17	10	9	1	8	52.9%	90.0%		0	0	-	-	-	-	-		4	1	1	0	3	25.0%	100.0%		2	4	1	3	1	50.0%	25.0%		
Performance Goals / Dedication	1	0	0	0	1	0.0%	-		0	1	0	1	0	-	0.0%		0	0	-	-	-	-	-		1	1	1	0	0	0	100.0%	100.0%	
Performance Goals / Achievement	15	0	0	0	15	0.0%	-		1	0	0	0	0	1	0.0%		1	0	0	0	1	0.0%	-		3	0	0	0	0	3	0.0%	-	
Performance Goals / Well-being	6	1	0	1	6	0.0%	0.0%		0	0	-	-	-	-	-		4	2	2	0	2	50.0%	100.0%		1	0	0	0	0	1	0.0%	-	
Autonomy Sat. / Competence Sat.	3	0	0	0	3	0.0%	-		0	1	0	1	0	-	0.0%		1	0	0	0	1	0.0%	-		0	1	0	1	0	-	0.0%	-	
Autonomy Sat. / Dedication	2	1	0	1	2	0.0%	0.0%		0	0	-	-	-	-	-		0	0	-	-	-	-	-		1	0	0	0	0	1	0.0%	-	
Autonomy Sat. / Achievement	0	0	0	0	0	-	-		0	0	-	-	-	-	-		0	0	-	-	-	-	-		0	0	0	0	0				

APPENDIX H: BREAKDOWN OF RELATIONSHIP LABELS AND VALENCIES FOR EACH RELATIONSHIP

NO DATA	NO RELATIONSHIP	CONCEPTUAL SIM.	CONTEXTUAL	RECIPROCAL	UNIDIRECTIONAL
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NO DATA	NO RELATIONSHIP	CONCEPTUAL SIM.	CONTEXTUAL	RECIPROCAL	UNIDIRECTIONAL
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Intrinsic Motivation / Academic Dedication	1	0	0	0	1	10	12	Controlling Motivation / Academic Achievement	5	0	1	3	1	4	14
Autonomous Motivation / Academic Dedication	1	0	4	0	6	6	17	Intrinsic Motivation / Well-being	1	0	2	0	1	10	14
Controlling Motivation / Academic Dedication	4	1	1	0	2	4	12	Autonomous Motivation / Well-being	2	1	0	1	3	5	12
Intrinsic Motivation / Academic Achievement	3	1	0	2	0	7	13	Controlling Motivation / Well-being	2	0	1	0	1	9	13
Autonomous Motivation / Academic Achievement	4	0	4	0	3	5	16	Autonomy Satisfaction/ Academic Dedication	8	0	0	2	0	2	12
Competence Satisfaction / Academic Dedication	6	1	0	1	1	3	12	Autonomy Satisfaction / Academic Achievement	12	0	0	0	0	0	12
Competence Satisfaction / Academic Achievement	0	1	2	0	7	3	13	Autonomy Satisfaction / Well-being	5	0	0	2	0	6	13
Competence Satisfaction/ Well-being	2	0	0	0	3	7	12	Intrinsic Motivation / Autonomous Motivation	1	0	3	8	6	1	19
Intrinsic Motivation / Controlling Motivation	2	0	0	9	0	2	13	Autonomous Motivation / Controlling Motivation	3	0	5	4	2	7	21
Intrinsic Motivation / Competence Satisfaction	2	0	0	2	4	6	14	Intrinsic Motivation / Autonomy Satisfaction	2	0	0	0	0	10	12
Autonomous Motivation / Competence Satisfaction	0	1	1	0	6	7	15	Autonomous Motivation / Autonomy Satisfaction	2	1	3	0	2	6	14
Controlling Motivation / Competence Satisfaction	4	0	1	2	0	7	14	Controlling Motivation / Autonomy Satisfaction	3	0	8	0	3	5	19
Autonomy Satisfaction / Competence Satisfaction	9	0	0	0	1	2	12	Mastery-Approach Goals / Performance-Approach Goals	0	0	11	7	3	2	23
Mastery-Approach Goals / Academic Dedication	8	1	0	1	0	2	12	Performance-Approach Goals / Academic Dedication	3	2	1	1	0	5	12
Mastery-Approach Goals / Academic Achievement	4	2	3	0	0	6	15	Performance-Approach Goals / Academic Achievement	0	0	12	0	0	6	18

Mastery-Approach Goals / Well-being	3	0	0	0	0	9	12	Performance-Approach Goals / Well-being	1	0	0	0	8	6	15
Mastery-Approach Goals / Intrinsic Motivation	2	2	2	0	5	4	15	Performance-Approach Goals / Intrinsic Motivation	1	1	0	1	3	7	13
Mastery-Approach Goals / Autonomous Motivation	0	0	8	1	8	4	21	Performance-Approach Goals / Autonomous Motivation	1	1	9	3	8	5	27
Mastery-Approach Goals / Controlling Motivation	2	2	0	3	0	5	12	Performance-Approach Goals / Controlling Motivation	3	1	5	0	3	4	16
Mastery-Approach Goals / Autonomy Satisfaction	2	3	0	2	0	6	13	Performance-Approach Goals / Autonomy Satisfaction	2	2	0	4	0	5	13
Mastery-Approach Goals / Competence Satisfaction	2	0	3	0	7	3	15	Performance-Approach Goals / Competence Satisfaction	1	0	5	0	10	1	17
TOTAL # of Students endorsing each type of relationship	119	24	95	59	108	214	619	TOTAL # of relationships endorsing each type of relationship	37	17	23	20	27	41	42

Intrinsic Motivation / Academic Dedication	1	RECIPROCAL (positive-positive)	Controlling Motivation / Academic Achievement	1	RECIPROCAL (negative-negative)
	10	UNIDIRECTIONAL		4	UNIDIRECTIONAL
	10	Intrinsic Motivation --> Dedication (Positive)		0	Controlling Motivation --> Achievement (Positive)
	0	Intrinsic Motivation --> Dedication (Negative)		1	Controlling Motivation --> Achievement (Negative)
	0	Dedication --> Intrinsic Motivation (Positive)		3	Achievement --> Controlling Motivation (Positive)
	0	Dedication --> Intrinsic Motivation (Negative)		0	Achievement --> Controlling Motivation (Negative)
Autonomous Motivation / Academic Dedication	6	RECIPROCAL (positive-positive)	Intrinsic Motivation / Well-being	1	RECIPROCAL (positive-positive)
	6	UNIDIRECTIONAL		10	UNIDIRECTIONAL
	5	Autonomous Motivation --> Dedication (Positive)		10	Intrinsic Motivation --> Well-being (Positive)
	0	Autonomous Motivation --> Dedication (Negative)		0	Intrinsic Motivation --> Well-being (Negative)
	1	Dedication --> Autonomous Motivation (Positive)		0	Well-being --> Intrinsic Motivation (Positive)
	0	Dedication --> Autonomous Motivation (Negative)		0	Well-being --> Intrinsic Motivation (Negative)
Controlling Motivation / Academic Dedication	2	RECIPROCAL (positive-positive)	Autonomous Motivation / Well-being	3	RECIPROCAL (2 positive-positive; 1 negative-negative)
	4	UNIDIRECTIONAL		5	UNIDIRECTIONAL

	3	Controlling Motivation --> Dedication (Positive)		4	Autonomous Motivation --> Well-being (Positive)
	0	Controlling Motivation --> Dedication (Negative)		1	Autonomous Motivation --> Well-being (Negative)
	1	Dedication -> Controlling Motivation (Positive)		0	Well-being -> Autonomous Motivation (Positive)
	0	Dedication -> Controlling Motivation (Negative)		0	Well-being -> Autonomous Motivation (Negative)
Intrinsic Motivation / Academic Achievement	0	RECIPROCAL	Controlling Motivation / Well-being	1	RECIPROCAL (negative-negative)
	7	UNIDIRECTIONAL		9	UNIDIRECTIONAL
	5	Intrinsic Motivation --> Achievement (Positive)		0	Controlling Motivation --> Well-being (Positive)
	0	Intrinsic Motivation --> Achievement (Negative)		8	Controlling Motivation --> Well-being (Negative)
	2	Achievement -> Intrinsic Motivation (Positive)		1	Well-being -> Controlling Motivation (Positive)
	0	Achievement -> Intrinsic Motivation (Negative)		0	Well-being -> Controlling Motivation (Negative)
Autonomous Motivation / Academic Achievement	3	RECIPROCAL (positive-positive)	Autonomy Satisfaction / Academic Dedication	0	RECIPROCAL
	5	UNIDIRECTIONAL		2	UNIDIRECTIONAL
	3	Autonomous Motivation --> Achievement (Positive)		2	Autonomy Satisfaction --> Dedication (Positive)
	0	Autonomous Motivation --> Achievement (Negative)		0	Autonomy Satisfaction --> Dedication (Negative)
	0	Achievement -> Autonomous Motivation (Positive)		0	Dedication -> Autonomy Satisfaction (Positive)
	2	Achievement -> Autonomous Motivation (Negative)		0	Dedication -> Autonomy Satisfaction (Negative)
Competence Satisfaction / Academic Dedication	1	RECIPROCAL (positive-positive)	Autonomy Satisfaction / Academic Achievement	0	RECIPROCAL
	3	UNIDIRECTIONAL		0	UNIDIRECTIONAL
	3	Competence Satisfaction --> Dedication (Positive)		0	Autonomy Satisfaction --> Achievement (Positive)
	0	Competence Satisfaction --> Dedication (Negative)		0	Autonomy Satisfaction --> Achievement (Negative)
	0	Dedication -> Competence Satisfaction (Positive)		0	Achievement -> Autonomy Satisfaction (Positive)
	0	Dedication -> Competence Satisfaction (Negative)		0	Achievement -> Autonomy Satisfaction (Negative)

Competence Satisfaction / Academic Achievement	7	RECIPROCAL (positive-positive)	Autonomy Satisfaction / Well-being	0	RECIPROCAL
	3	UNIDIRECTIONAL		6	UNIDIRECTIONAL
	1	Competence Satisfaction --> Achievement (Positive)		6	Autonomy Satisfaction --> Well-being (Positive)
	0	Competence Satisfaction --> Achievement (Negative)		0	Autonomy Satisfaction --> Well-being (Negative)
	2	Achievement -> Competence Satisfaction (Positive)		0	Well-being -> Autonomy Satisfaction (Positive)
	0	Achievement -> Competence Satisfaction (Negative)		0	Well-being -> Autonomy Satisfaction (Negative)
Competence Satisfaction/ Well-being	3	RECIPROCAL (2 positive-positive; 1 WB -> Csat: positive; Csat -> WB: negative)	Intrinsic Motivation / Autonomous Motivation	6	RECIPROCAL (positive-positive)
	7	UNIDIRECTIONAL		1	UNIDIRECTIONAL
	7	Competence Satisfaction --> Well-being (Positive)		1	Autonomous Motivation --> Intrinsic Motivation (Positive)
	0	Competence Satisfaction --> Well-being (Negative)		0	Autonomous Motivation --> Intrinsic Motivation (Negative)
	0	Well-being -> Competence Satisfaction (Positive)		0	Intrinsic Motivation -> Autonomous Motivation (Positive)
	0	Well-being -> Competence Satisfaction (Negative)		0	Intrinsic Motivation -> Autonomous Motivation (Negative)
Intrinsic Motivation / Controlling Motivation	0	RECIPROCAL	Autonomous Motivation / Controlling Motivation	2	RECIPROCAL (2 CMot->AMot: positive; AMot->CMot: neg)
	2	UNIDIRECTIONAL		7	UNIDIRECTIONAL
	0	Intrinsic Motivation --> Controlling Mot. (Positive)		4	Controlling Motivation --> Autonomous Mot. (Positive)
	0	Intrinsic Motivation --> Controlling Mot. (Negative)		2	Controlling Motivation --> Autonomous Mot. (Negative)
	0	Controlling Motivation -> Intrinsic Mot. (Positive)		0	Autonomous Mot. -> Controlling Motivation (Positive)
	2	Controlling Motivation -> Intrinsic Mot. (Negative)		1	Autonomous Mot. -> Controlling Motivation (Negative)
Intrinsic Motivation / Competence Satisfaction	4	RECIPROCAL (positive-positive)	Intrinsic Motivation / Autonomy Satisfaction	0	RECIPROCAL
	6	UNIDIRECTIONAL		10	UNIDIRECTIONAL
	5	Intrinsic Mot. --> Competence Satisfaction (Positive)		1	Intrinsic Motivation --> Autonomy Satisfaction (Positive)
	0	Intrinsic Mot. --> Competence Satisfaction (Negative)		0	Intrinsic Motivation --> Autonomy Satisfaction (Negative)

	1	Competence Satisfaction -> Intrinsic Mot. (Positive)		9	Autonomy Satisfaction -> Intrinsic Motivation (Positive)
	0	Competence Satisfaction -> Intrinsic Mot. (Negative)		0	Autonomy Satisfaction -> Intrinsic Motivation (Negative)
Autonomous Motivation / Competence Satisfaction	6	RECIPROCAL (3 positive-positive; 3 CSat-> AMot: negative; AMot-> CSat: positive)	Autonomous Motivation / Autonomy Satisfaction	2	RECIPROCAL (2 positive-positive)
	7	UNIDIRECTIONAL		6	UNIDIRECTIONAL
	4	Autonomous Mot. --> Competence Sat. (Positive)		1	Autonomous Mot. --> Autonomy Satisfaction (Positive)
	1	Autonomous Mot. --> Competence Sat. (Negative)		1	Autonomous Motivation --> Autonomy Sat. (Negative)
	2	Competence Sat. -> Autonomous Mot. (Positive)		4	Autonomy Satisfaction -> Autonomous Motivation (Positive)
	0	Competence Sat. -> Autonomous Mot. (Negative)		0	Autonomy Satisfaction -> Autonomous Mot. (Negative)
Controlling Motivation / Competence Satisfaction	0	RECIPROCAL	Controlling Motivation / Autonomy Satisfaction	3	RECIPROCAL (1 negative-negative; 1 CMot-> ASat: positive, ASat-> CMot negative; 1 CMot->ASat: negative, ASat-> CMot positive)
	7	UNIDIRECTIONAL		5	UNIDIRECTIONAL
	2	Controlling Mot. --> Competence Sat. (Positive)		1	Controlling Motivation --> Autonomy Satisfaction (Positive)
	2	Controlling Mot. --> Competence Sat. (Negative)		4	Controlling Motivation --> Autonomy Satisfaction (Negative)
	2	Competence Sat. -> Controlling Mot. (Positive)		0	Autonomy Satisfaction -> Controlling Motivation (Positive)
	1	Competence Sat. -> Controlling Mot. (Negative)		0	Autonomy Satisfaction -> Controlling Motivation (Negative)
Autonomy Satisfaction / Competence Satisfaction	1	RECIPROCAL (positive-positive)	Mastery-Approach Goals / Performance-Approach Goals	3	RECIPROCAL (2 positive-positive; 1 Map->Pap: positive: Pap->Map: negative)
	2	UNIDIRECTIONAL		2	UNIDIRECTIONAL
	1	Autonomy Sat. --> Competence Satisfaction (Positive)		2	Mastery Goals --> Performance Goals (Positive)
	0	Autonomy Sat. --> Competence Sat. (Negative)		0	Mastery Goals --> Performance Goals (Negative)
	1	Competence Satisfaction -> Autonomy Sat. (Positive)		0	Performance Goals -> Mastery Goals (Positive)
	0	Competence Satisfaction -> Autonomy Sat. (Negative)		0	Performance Goals -> Mastery Goals (Negative)

Mastery- Approach Goals / Academic Dedication	0	RECIPROCAL	Performance- Approach Goals / Academic Dedication	0	RECIPROCAL
	2	UNIDIRECTIONAL		5	UNIDIRECTIONAL
	1	Mastery Goals --> Dedication (Positive)		1	Performance Goals --> Dedication (Positive)
	0	Mastery Goals --> Dedication (Negative)		0	Performance Goals --> Dedication (Negative)
	1	Dedication -> Mastery Goals (Positive)		3	Dedication -> Performance Goals (Positive)
	0	Dedication -> Mastery Goals (Negative)		1	Dedication -> Performance Goals (Negative)
Mastery- Approach Goals / Academic Achievement	0	RECIPROCAL	Performance- Approach Goals / Academic Achievement	0	RECIPROCAL
	6	UNIDIRECTIONAL		6	UNIDIRECTIONAL
	6	Mastery Goals --> Achievement (Positive)		1	Performance Goals --> Achievement (Positive)
	0	Mastery Goals --> Achievement (Negative)		0	Performance Goals --> Achievement (Negative)
	0	Achievement -> Mastery Goals (Positive)		4	Achievement -> Performance Goals (Positive)
	0	Achievement -> Mastery Goals (Negative)		1	Achievement -> Performance Goals (Negative)
Mastery- Approach Goals / Well- being	0	RECIPROCAL	Performance- Approach Goals / Well-being	8	RECIPROCAL (3 positive-positive; 2 negative-negative; 2 WB—>PG positive, PG—> WB negative; 1 WB—>PG negative, PG—> WB positive)
	9	UNIDIRECTIONAL		6	UNIDIRECTIONAL
	7	Mastery Goals--> Well-being (Positive)		4	Performance Goals —> Well-being (Positive)
	1	Mastery Goals --> Well-being (Negative)		2	Performance Goals —> Well-being (Negative)
	1	Well-being -> Mastery Goals (Positive)		0	Well-being -> Performance Goals (Positive)
	0	Well-being -> Mastery Goals (Negative)		0	Well-being -> Performance Goals (Negative)
Mastery- Approach Goals / Intrinsic Motivation	5	RECIPROCAL (positive-positive)	Performance- Approach Goals / Intrinsic Motivation	3	RECIPROCAL (positive-positive)
	4	UNIDIRECTIONAL		7	UNIDIRECTIONAL
	3	Intrinsic Motivation --> Mastery Goals (Positive)		1	Performance Goals --> Intrinsic Motivation (Positive)

	0	Intrinsic Motivation --> Mastery Goals (Negative)		0	Performance Goals --> Intrinsic Motivation (Negative)
	1	Mastery Goals -> Intrinsic Motivation (Positive)		6	Intrinsic Motivation -> Performance Goals (Positive)
	0	Mastery Goals -> Intrinsic Motivation (Negative)		0	Intrinsic Motivation -> Performance Goals (Negative)
Mastery- Approach Goals / Autonomous Motivation	8	RECIPROCAL (positive-positive)	Performance- Approach Goals / Autonomous Motivation	8	RECIPROCAL (positive-positive)
	4	UNIDIRECTIONAL		5	UNIDIRECTIONAL
	2	Mastery Goals --> Autonomous Motivation (Positive)		1	Performance Goals--> Autonomous Motivation (Positive)
	1	Mastery Goals --> Autonomous Motivation (Negative)		3	Performance Goals --> Autonomous Motivation (Negative)
	1	Autonomous Motivation -> Mastery Goals (Positive)		0	Autonomous Motivation -> Performance Goals (Positive)
	0	Autonomous Motivation -> Mastery Goals (Negative)		1	Autonomous Motivation -> Performance Goals (Negative)
Mastery- Approach Goals / Controlling Motivation	0	RECIPROCAL	Performance- Approach Goals /Controlling Motivation	3	RECIPROCAL (positive-positive)
	5	UNIDIRECTIONAL		4	UNIDIRECTIONAL
	0	Mastery Goals --> Controlling Motivation (Positive)		0	Performance Goals --> Controlling Motivation (Positive)
	0	Mastery Goals --> Controlling Motivation (Negative)		0	Performance Goals --> Controlling Motivation (Negative)
	3	Controlling Motivation -> Mastery Goals (Positive)		4	Controlling Motivation -> Performance Goals (Positive)
	2	Controlling Motivation -> Mastery Goals (Negative)		0	Controlling Motivation -> Performance Goals (Negative)
Mastery- Approach Goals / Autonomy Satisfaction	0	RECIPROCAL	Performance- Approach Goals / Autonomy Satisfaction	0	RECIPROCAL
	6	UNIDIRECTIONAL		5	UNIDIRECTIONAL
	1	Mastery Goals--> Autonomy Satisfaction (Positive)		0	Performance Goals --> Autonomy Satisfaction (Positive)
	0	Mastery Goals --> Autonomy Satisfaction (Negative)		1	Performance Goals --> Autonomy Satisfaction (Negative)
	2	Autonomy Satisfaction -> Mastery Goals (Positive)		3	Autonomy Satisfaction -> Performance Goals (Positive)
	3	Autonomy Satisfaction -> Mastery Goals (Negative)		1	Autonomy Satisfaction -> Performance Goals (Negative)
Mastery- Approach	7	RECIPROCAL (positive-positive)	Performance- Approach Goals	10	RECIPROCAL (positive-positive)

Goals / Competence Satisfaction	3	UNIDIRECTIONAL	/ Competence Satisfaction	1	UNIDIRECTIONAL
	1	Mastery Goals --> Competence Satisfaction (Positive)		0	Performance Goals --> Competence Satisfaction (Positive)
	0	Mastery Goals --> Competence Satisfaction (Negative)		0	Performance Goals --> Competence Satisfaction (Negative)
	1	Competence Satisfaction -> Mastery Goals (Positive)		1	Competence Satisfaction -> Performance Goals (Positive)
	1	Competence Satisfaction -> Mastery Goals (Negative)		0	Competence Satisfaction -> Performance Goals (Negative)

UNIDIRECTIONAL: n = 170 positive; n = 44 negative

RECIPROCAL: n = 90 positive-positive; n = 6 negative-negative; n = 12 positive-negative or negative-positive

VITA

Jade Anderson completed her undergraduate degree at the University of Saskatchewan (U of S) in 2007 with Honours in Psychology and a minor in Computer Science. She began the Master's program in Applied Social Psychology at the U of S in 2012 and is currently the Project Coordinator of a multi-disciplinary study on safety engagement of employees in the mining industry, funded by the International Minerals Innovation Institute. Jade hopes to continue a career in social psychological research, program evaluation, and instructing undergraduate courses.